



City of Salford.

---

# ANNUAL REPORT

OF THE

Medical Officer of Health

FOR THE YEAR

1929.

BY

H. OSBORNE,

MEDICAL OFFICER OF HEALTH.





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Also co-opted for Housing Purposes :—

Mrs. BERRY . . . . . Representing the Pendleton Co-operative Industrial Society Limited.

Mrs. CUDDEFORD, J.P. A member of the Maternity and Child Welfare Sub-Committee.

Miss V. HEWIT . . . . . Representing the Manchester and Salford Women Citizens' Association

The following members were co-opted upon the undermentioned Sub-Committees, viz. :—

Tuberculosis Sub-Committee—Mrs. E. HAMPSON and Mr. J. SPEAKMAN, representing the Salford Insurance Committee.

Maternity and Child Welfare Sub-Committee—Mrs. J. GOODIER HAWORTH, J.P., and Mrs. PILKINGTON, representing the Ladies' Public Health Society ; and Mrs. CUDDEFORD, J.P., representing the Women's Guild of the Pendleton Co-operative Industrial Society Ltd.

## STAFF.

## Public Health Department.

|                                                                      |   |                                                                   |
|----------------------------------------------------------------------|---|-------------------------------------------------------------------|
| Medical Officer of Health.....                                       | } | H. OSBORNE, M.D., M.R.C.S., D.P.H., etc                           |
| Administrative Tuberculosis Officer....                              |   |                                                                   |
| Honorary Consulting Medical Officer ..                               |   | C. H. TATTERSALL, M.R.C.S., L.R.C.P., D.P.H.                      |
| Clinical Tuberculosis Officers .....                                 | { | E. N. RAMSBOTTOM, M.A., B.Sc., M.D. (Lond.), D.P.H., etc.         |
|                                                                      |   | J. G. MCKINLAY, M.B., Ch.B., D.P.H.                               |
| Medical Superintendent, Ladywell Sanatorium .....                    | { | W. EDGE, M.R.C.S., L.R.C.P., D.P.H.                               |
|                                                                      |   |                                                                   |
| Assistant Resident Medical Officer, Ladywell Sanatorium .....        | { | J. L. BRADLEY, M.B., B.Ch. (to 20th March, 1929.)                 |
|                                                                      |   | J. T. C. KEDDIE, M.B., B.S. (from 21st March, 1929).              |
| Resident Medical Officer, Nab Top Tuberculosis Sanatorium. Marple .. | { | H. M. FLEMING, B.A., M.D., D.P.H.                                 |
|                                                                      |   |                                                                   |
| Maternity and Child Welfare Medical Officers .....                   | { | H. K. BRADE-BIRKS, M.Sc., M.B., Ch.B., M.R.C.S., D.P.H. (Senior). |
|                                                                      |   | M. SPROUL, M.B., Ch.B., D.P.H.                                    |
|                                                                      |   | K. D. ARNSBY, M.B., B.S.                                          |
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| City Bacteriologist .....                                            |   | G. J. CRAWFORD, B.Sc., M.D., M.R.C.P. (Lond.), D.P.H.             |
| Venereal Diseases Medical Officer .....                              |   | E. TYTLER BURKE, D.S.O., M.B., Ch.B.                              |
| Deputy Venereal Diseases Medical Officer .....                       | { | F. W. F. PURCELL, M.R.C.S., L.R.C.P.                              |
|                                                                      |   |                                                                   |
| Asst. Venereal Diseases Medical Officer                              |   | F. M. BLADES, M.B.Ch.B.                                           |
| Veterinary Inspector .....                                           |   | A. ALEXANDER, M.R.C.V.S., D.V.S.M.                                |
| Public Analyst .....                                                 | { | H. H. BAGNALL, B.Sc., F.I.C. (to June 30th, 1929.)                |
|                                                                      |   | H. E. MONK B.Sc., F.I.C. (from 1st July, 1929.)                   |
| Chief Clerk .....                                                    |   | E. WOOD.                                                          |
| Chief Sanitary Inspector.....                                        |   | J. P. CARGILL, M.R.S.I.                                           |

For Staff of the School Medical Department, see page 185.

## TO THE HEALTH COMMITTEE OF THE CITY OF SALFORD.

GENTLEMEN,

I have the honour to present my report on the Health of the City and the work of the Public Health Department for the year 1929.

I submit below particulars of the death rate, birth rate and infantile mortality rate for 1929. The death rate and birth rate are arrived at by reference to the population as estimated at the middle of the year by the Registrar-General, who estimated Salford's population at mid-year 1929 as 235,600 as compared with 241,500 at mid-year 1928. The rates in question are, of course, affected by this rather remarkable variation in the population in the course of a single year.

### Death Rate.

The Death Rate for 1929 was 15·4 per thousand of the population as compared with 13·3 in the year 1928. In considering this increase it must be borne in mind that the death rate for 1928 was the lowest but one ever recorded for Salford, while the exceptionally severe weather which occurred early in 1929 was responsible to a great extent for this increase. As usual during severe weather, influenza took a heavy toll, claiming no fewer than 149 deaths more than in the previous year. Bronchitis and Pneumonia also preyed heavily upon the population, especially upon those over forty-five years of age, while Whooping Cough played havoc among children under five years of age. The following table



shows the diseases which caused the largest increases in deaths during 1929 as compared with 1928 :—

| Disease.                 | Increase as compared<br>with 1928. |
|--------------------------|------------------------------------|
| Whooping Cough . . . . . | 65                                 |
| Influenza . . . . .      | 149                                |
| Bronchitis . . . . .     | 165                                |
| Pneumonia . . . . .      | 99                                 |

### Birth Rate.

The Birth Rate showed a slight reduction from 16·9 to 16·6 per 1,000 of the population, but the actual number of births was reduced by 170 as compared with 1928.

### Infantile Mortality Rate.

The serious increase in the Infantile Mortality Rate from 106 to 125 deaths under one year of age per thousand births calls for special mention and has given me great concern. It was occasioned almost entirely by an epidemic of diarrhoea—the probability of the recurrence of which is unlikely. It is expected that the figures for the year 1930 will show a great improvement in this respect.

### Maternity and Child Welfare.

Two important developments in connection with Maternity and Child Welfare matured during 1929 in the opening of the Ordsall and Encombe Place Centres.

The first named Centre was formally opened on 19th February, 1929, by Dame Janet Campbell, Senior Medical Officer for Maternity and Child Welfare of the Ministry of Health, while the Encombe Place Centre (which took the

place of the Rosamond Street Centre formerly rented by the Ladies' Public Health Society) was opened in June, 1929. Both these Centres are admirably suited to their purpose and the acquisition of similar premises in the Broughton and Pendleton Districts is equally desirable.

### **Treatment of Venereal Diseases.**

The treatment of Venereal Diseases has been made the subject of a special report which will be found on pp. 137 to 184. It is sufficient to say here that the need for such a clinic has been established by the constant increase in the attendances of both males and females since its opening in April, 1928.

### **Tuberculosis.**

The death rate from Phthisis was similar to that in 1928, viz., 1·2 per 1,000 of the population. This compares with an average rate of 1·3 for the previous ten years and with much higher rates prior to 1918. The provision of an up-to-date X-ray apparatus has greatly aided the Clinical Tuberculosis Officers in their diagnoses. I am of opinion, however, that before we can expect any great reduction in the number of deaths from this disease in Salford, there will need to be a vast improvement in the housing conditions of many of its inhabitants. Hospitals and sanatoria are not preventatives. Medical treatment may bring about cures in certain cases, but the ideal at which to aim is a race reared under such conditions that they will develop in themselves the power of resisting the disease.

### **Housing.**

The outstanding public health problem of the day in Salford is housing, and until people are properly housed



we may look for no great improvement in their health. For a number of years it has been my duty as Medical Officer of Health to issue certificates to applicants for Corporation houses, to the effect that as the occupants are living in overcrowded conditions, it is desirable that the family should be provided with more accommodation. Hundreds of these certificates have been issued, but in the vast majority of cases without avail, because the houses required do not exist. In order to re-house the tenants of the slum areas alone, approximately 3,000 houses are required. But apart from slum areas, further housing provision is required to relieve overcrowding. It is obvious that all these houses cannot be built in Salford, even after making a liberal allowance for the cases in which it will be possible to re-house on the cleared site. There are too many houses in Salford already. The peculiar circumstances in which Salford finds itself in this connection call for the most careful consideration.

In conclusion, I desire to express to the members of the Health Committee my warmest thanks for the consideration and support which they have given to me so freely throughout the year. At the same time, my thanks are due to the staff of the Health Department for the loyal and efficient manner in which they have performed their duties.

I have the honour to be, Gentlemen,

Your obedient servant,

H. OSBORNE,

*Medical Officer of Health.*

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## SECTION I.

## Mortality Statistics.

## STATISTICAL SUMMARY, 1929.

**Area.**—The City of Salford has a total area of 5,202 acres.

**Population.**—Estimated to the middle of the year . . . . . 235,600

„ (Census, 1921) . . . . . \*234,045

**Density.**—The Mean Density of the City is equal to 45·29 persons per acre.

|        |   |               |   |                 |       |
|--------|---|---------------|---|-----------------|-------|
| Deaths | { | Males 1,877   | } | Total . . . . . | 3,623 |
|        |   | Females 1,746 |   |                 |       |

**Annual Rate of Mortality per 1,000—of the Population . . . . . 15·4**

|        |   |               |   |                 |       |
|--------|---|---------------|---|-----------------|-------|
| Births | { | Males 2,006   | } | Total . . . . . | 3,903 |
|        |   | Females 1,897 |   |                 |       |

**Annual Rate of Births per 1,000 of the Population . . . . . 16·6**

**Deaths under one year of age per 1,000 Births . . . . . 125**

**Number of women dying in consequence of childbirth . . . . . 15**

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\* Owing to the census having taken place during the holiday season, this figure is low. The Registrar-General estimated the normal resident population at mid-year 1921 to be 239,100.

TABLE M. 3.  
DEATHS IN WARDS FOR THE YEAR 1929.

| CAUSES OF DEATH.                         | AT ALL AGES. |              |              |            |           |        |         |             |               |              |         |               |             |             |          |          |        |
|------------------------------------------|--------------|--------------|--------------|------------|-----------|--------|---------|-------------|---------------|--------------|---------|---------------|-------------|-------------|----------|----------|--------|
|                                          | City.        | Albert Park. | Charlestown. | Claremont. | Crescent. | Docks. | Kersal. | Langworthy. | Mandley Park. | Ordall Park. | Regent. | St. Matthias. | St. Paul's. | St. Thomas. | Seedley. | Trinity. | Waste. |
| Malaria .....                            | 1            | ..           | ..           | ..         | ..        | 1      | ..      | ..          | ..            | ..           | ..      | ..            | ..          | ..          | ..       | ..       | ..     |
| Enteric Fever .....                      | 2            | ..           | ..           | ..         | ..        | ..     | ..      | ..          | ..            | ..           | ..      | ..            | ..          | 1           | ..       | ..       | 1      |
| Small-pox .....                          | ..           | ..           | ..           | ..         | ..        | ..     | ..      | ..          | ..            | ..           | ..      | ..            | ..          | ..          | ..       | ..       | ..     |
| Measles .....                            | 32           | 2            | 2            | ..         | 4         | 3      | 1       | 2           | 2             | ..           | 1       | 2             | 5           | 3           | ..       | 4        | 1      |
| Scarlet Fever.....                       | 3            | ..           | 1            | 1          | 1         | ..     | ..      | ..          | ..            | ..           | ..      | ..            | ..          | ..          | ..       | ..       | ..     |
| Whooping Cough .....                     | 104          | 5            | 4            | ..         | 31        | 3      | 1       | 2           | 4             | 7            | 7       | 8             | 8           | 4           | 3        | 14       | 3      |
| Diphtheria and Croup .....               | 39           | 3            | 1            | ..         | 4         | 5      | ..      | ..          | ..            | 3            | 12      | 3             | 1           | 3           | ..       | 3        | 1      |
| Chicken Pox .....                        | ..           | ..           | ..           | ..         | ..        | ..     | ..      | ..          | ..            | ..           | ..      | ..            | ..          | ..          | ..       | ..       | ..     |
| Influenza .....                          | 203          | 23           | 9            | 16         | 18        | 5      | 6       | 10          | 19            | 17           | 16      | 10            | 11          | 8           | 8        | 15       | 12     |
| Erysipelas.....                          | 8            | 1            | 1            | ..         | ..        | 1      | 1       | ..          | 1             | ..           | ..      | ..            | 1           | ..          | ..       | 1        | 1      |
| Encephalitis Lethargia.....              | 13           | 4            | 1            | 1          | ..        | 1      | 1       | ..          | ..            | ..           | ..      | ..            | 1           | 1           | ..       | 1        | 2      |
| Anthrax .....                            | ..           | ..           | ..           | ..         | ..        | ..     | ..      | ..          | ..            | ..           | ..      | ..            | ..          | ..          | ..       | ..       | ..     |
| Tuberculosis of Respiratory System ..... | 276          | 16           | 16           | 4          | 34        | 20     | 6       | 14          | 24            | 22           | 28      | 20            | 12          | 17          | 10       | 25       | 8      |
| Tuberc: Meningitis .....                 | 13           | ..           | ..           | ..         | 2         | ..     | ..      | 1           | 2             | 2            | 1       | ..            | 1           | 2           | ..       | ..       | 2      |
| Other tuberculous diseases.....          | 23           | ..           | 1            | ..         | 4         | ..     | 2       | 1           | ..            | 2            | 1       | 4             | ..          | 2           | 1        | 5        | ..     |
| Cancer (Malignant Disease) .....         | 310          | 27           | 26           | 20         | 23        | 11     | 11      | 14          | 27            | 20           | 26      | 23            | 13          | 13          | 19       | 25       | 12     |
|                                          | 2            | 3            | 4            | 5          | 6         | 7      | 8       | 9           | 10            | 11           | 12      | 13            | 14          | 15          | 16       | 17       | 18     |



|                                                                 | 2    | 3   | 4   | 5   | 6   | 7   | 8   | 9   | 10  | 11  | 12  | 13  | 14  | 15  | 16  | 17  | 18  |
|-----------------------------------------------------------------|------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Diabetes .....                                                  | 30   | 5   | 1   | ..  | 2   | 1   | 5   | 1   | 1   | ..  | 2   | 3   | 2   | 4   | 1   | 2   | ..  |
| Rheumatic Fever .....                                           | 19   | 2   | 1   | ..  | 1   | ..  | 1   | ..  | ..  | 5   | ..  | 2   | 1   | 1   | 1   | 3   | 1   |
| Meningitis .....                                                | 6    | ..  | 1   | ..  | 1   | ..  | ..  | ..  | 1   | 1   | ..  | ..  | 1   | ..  | ..  | ..  | 1   |
| Cerebro-Spinal Meningitis .....                                 | 5    | ..  | 1   | ..  | 1   | ..  | ..  | ..  | 1   | ..  | ..  | ..  | ..  | 1   | ..  | 1   | ..  |
| Cerebral Hæmorrhage, etc. ....                                  | 136  | 11  | 15  | 10  | 7   | 8   | 9   | 6   | 6   | 8   | 3   | 8   | 7   | 8   | 13  | 10  | 7   |
| Poliomyelitis .....                                             | ..   | ..  | ..  | ..  | ..  | ..  | ..  | ..  | ..  | ..  | ..  | ..  | ..  | ..  | ..  | ..  | ..  |
| Arterio Sclerosis .....                                         | 185  | 11  | 14  | 9   | 19  | 8   | 6   | 15  | 17  | 17  | 14  | 7   | 12  | 9   | 9   | 12  | 6   |
| Heart Disease ...                                               | 256  | 22  | 13  | 11  | 13  | 17  | 12  | 16  | 12  | 19  | 21  | 27  | 18  | 18  | 7   | 18  | 12  |
| Bronchitis .....                                                | 516  | 45  | 51  | 16  | 48  | 20  | 19  | 18  | 42  | 44  | 48  | 41  | 24  | 34  | 10  | 46  | 10  |
| Pneumonia (all forms)....                                       | 391  | 31  | 25  | 4   | 37  | 19  | 19  | 19  | 15  | 30  | 35  | 43  | 25  | 27  | 9   | 42  | 11  |
| Other Respiratory Diseases .....                                | 60   | 7   | 5   | ..  | 3   | 4   | 5   | 1   | 5   | 3   | 6   | 4   | 3   | 7   | ..  | 4   | 3   |
| Diarrhœa and Enteritis .....                                    | 166  | 13  | 11  | 1   | 22  | 3   | 3   | 4   | 4   | 12  | 24  | 9   | 19  | 6   | 4   | 21  | 10  |
| Ulcer of Stomach and Duodenum .....                             | 16   | ..  | ..  | ..  | 1   | 1   | 1   | 2   | 1   | ..  | 2   | 2   | 1   | 1   | ..  | 4   | ..  |
| Appendicitis and Typhlitis .....                                | 11   | ..  | ..  | ..  | 1   | 1   | 2   | 1   | 1   | ..  | ..  | ..  | 1   | ..  | ..  | 4   | ..  |
| Cirrhosis of Liver .....                                        | 18   | ..  | ..  | ..  | 3   | 4   | ..  | ..  | 1   | 3   | 3   | 2   | ..  | 1   | ..  | ..  | 1   |
| Alcoholism .....                                                | ..   | ..  | ..  | ..  | ..  | ..  | ..  | ..  | ..  | ..  | ..  | ..  | ..  | ..  | ..  | ..  | ..  |
| Nephritis, Acute and Chronic .....                              | 90   | 5   | 4   | 7   | 9   | 5   | 3   | 3   | 9   | 6   | 9   | 3   | 3   | 3   | 4   | 10  | 7   |
| Puerperal Sepsis .....                                          | 5    | ..  | ..  | ..  | ..  | ..  | ..  | ..  | ..  | ..  | ..  | ..  | ..  | ..  | 1   | 3   | ..  |
| Other Accidents and Diseases of Pregnancy and Parturition ..... | 10   | 2   | ..  | ..  | ..  | 1   | ..  | ..  | ..  | ..  | 1   | 1   | 2   | ..  | ..  | 2   | ..  |
| Congenital Debility and Malformation .....                      | 69   | 3   | 6   | 2   | 9   | 2   | 5   | 2   | 6   | 5   | 6   | 6   | 1   | 4   | 1   | 8   | 3   |
| Premature Birth.....                                            | 92   | 8   | 8   | 3   | 10  | 5   | 6   | 6   | 2   | 5   | 11  | 4   | 5   | 8   | 1   | 5   | 5   |
| Violent Deaths (excluding Suicide) .....                        | 89   | 11  | 4   | 2   | 5   | 7   | 5   | 1   | 7   | 6   | 6   | 6   | 5   | 8   | 1   | 10  | 5   |
| Suicide .....                                                   | 25   | 1   | 5   | 2   | 2   | ..  | 2   | ..  | ..  | ..  | 4   | 2   | ..  | 1   | 3   | 2   | 1   |
| Other Defined Diseases .....                                    | 394  | 40  | 22  | 18  | 34  | 22  | 29  | 18  | 23  | 19  | 30  | 25  | 19  | 22  | 19  | 31  | 23  |
| Ill-defined or Unknown .....                                    | 7    | ..  | 2   | ..  | ..  | ..  | ..  | 1   | ..  | 2   | ..  | 1   | ..  | 1   | ..  | ..  | ..  |
| Totals .....                                                    | 3623 | 298 | 251 | 127 | 349 | 178 | 161 | 158 | 233 | 258 | 317 | 266 | 203 | 218 | 125 | 331 | 150 |

TABLE M. 4.

CAUSES OF, AND AGES AT, DEATH DURING THE YEAR 1929.

| CAUSES OF DEATH.                                                 | NETT DEATHS AT THE SUBJOINED AGES OF<br>"RESIDENTS" WHETHER OCCURRING WITHIN<br>OR WITHOUT THE DISTRICT. |                  |                         |                         |                          |                           |                           |                           |                    |
|------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------|------------------|-------------------------|-------------------------|--------------------------|---------------------------|---------------------------|---------------------------|--------------------|
|                                                                  | All Ages.                                                                                                | Under<br>1 year. | 1 and under<br>2 years. | 2 and under<br>5 years. | 5 and under<br>15 years. | 15 and under<br>25 years. | 25 and under<br>45 years. | 45 and under<br>65 years. | 65 and<br>upwards. |
| ALL CAUSES—Certified .....                                       | 3617                                                                                                     | 489              | 150                     | 117                     | 119                      | 149                       | 408                       | 974                       | 1217               |
| Uncertified .....                                                | 6                                                                                                        | ..               | ..                      | ..                      | ..                       | ..                        | ..                        | 1                         | 5                  |
| Malaria .....                                                    | 1                                                                                                        | ..               | ..                      | ..                      | ..                       | ..                        | 1                         | ..                        | ..                 |
| Enteric Fever .....                                              | 2                                                                                                        | ..               | ..                      | ..                      | ..                       | ..                        | 2                         | ..                        | ..                 |
| Small Pox .....                                                  | ..                                                                                                       | ..               | ..                      | ..                      | ..                       | ..                        | ..                        | ..                        | ..                 |
| Measles .....                                                    | 32                                                                                                       | 11               | 11                      | 6                       | 4                        | ..                        | ..                        | ..                        | ..                 |
| Scarlet Fever .....                                              | 3                                                                                                        | ..               | 1                       | ..                      | 2                        | ..                        | ..                        | ..                        | ..                 |
| Whooping Cough .....                                             | 104                                                                                                      | 36               | 35                      | 28                      | 1                        | 4                         | ..                        | ..                        | ..                 |
| Diphtheria and Croup .....                                       | 39                                                                                                       | 1                | 6                       | 10                      | 21                       | ..                        | ..                        | 1                         | ..                 |
| Chicken Pox .....                                                | ..                                                                                                       | ..               | ..                      | ..                      | ..                       | ..                        | ..                        | ..                        | ..                 |
| Influenza .....                                                  | 203                                                                                                      | 4                | 2                       | 2                       | 3                        | 5                         | 35                        | 72                        | 80                 |
| Erysipelas .....                                                 | 8                                                                                                        | ..               | ..                      | ..                      | ..                       | ..                        | 1                         | 3                         | 4                  |
| Encephalitis Lethargica .....                                    | 13                                                                                                       | ..               | 2                       | ..                      | ..                       | 1                         | 3                         | 5                         | 2                  |
| Anthrax .....                                                    | ..                                                                                                       | ..               | ..                      | ..                      | ..                       | ..                        | ..                        | ..                        | ..                 |
| Tuberculosis of Respiratory<br>System .....                      | 276                                                                                                      | 1                | ..                      | 2                       | 9                        | 51                        | 119                       | 88                        | 6                  |
| Tuberculous Meningitis .....                                     | 13                                                                                                       | 2                | ..                      | 4                       | 2                        | 5                         | ..                        | ..                        | ..                 |
| Other Tuberculous Diseases .....                                 | 23                                                                                                       | 1                | 2                       | 1                       | 4                        | 7                         | 3                         | 4                         | 1                  |
| Cancer, malignant disease .....                                  | 310                                                                                                      | ..               | ..                      | ..                      | 1                        | ..                        | 29                        | 146                       | 134                |
| Diabetes .....                                                   | 30                                                                                                       | ..               | ..                      | ..                      | ..                       | 1                         | 4                         | 13                        | 12                 |
| Rheumatic Fever .....                                            | 19                                                                                                       | ..               | ..                      | ..                      | 8                        | 4                         | 5                         | ..                        | 2                  |
| Meningitis .....                                                 | 6                                                                                                        | ..               | 2                       | 1                       | 2                        | ..                        | 1                         | ..                        | ..                 |
| Cerebro-Spinal Meningitis .....                                  | 5                                                                                                        | 2                | ..                      | 2                       | ..                       | 1                         | ..                        | ..                        | ..                 |
| Cerebral Hæmorrhage, etc. ....                                   | 136                                                                                                      | 5                | ..                      | ..                      | ..                       | ..                        | 2                         | 47                        | 82                 |
| Poliomyelitis .....                                              | ..                                                                                                       | ..               | ..                      | ..                      | ..                       | ..                        | ..                        | ..                        | ..                 |
| Arterio Sclerosis .....                                          | 185                                                                                                      | ..               | ..                      | ..                      | 1                        | ..                        | ..                        | 43                        | 141                |
| Heart Disease .....                                              | 256                                                                                                      | ..               | ..                      | ..                      | 4                        | 7                         | 26                        | 96                        | 123                |
| Bronchitis .....                                                 | 516                                                                                                      | 18               | 7                       | 7                       | 5                        | 3                         | 21                        | 184                       | 271                |
| Pneumonia (all forms) .....                                      | 391                                                                                                      | 84               | 49                      | 36                      | 16                       | 14                        | 42                        | 72                        | 78                 |
| Other Respiratory Diseases .....                                 | 60                                                                                                       | 3                | ..                      | ..                      | 3                        | 3                         | 5                         | 24                        | 22                 |
| Diarrhœa and Enteritis .....                                     | 166                                                                                                      | 131              | 21                      | 3                       | 1                        | ..                        | ..                        | 4                         | 6                  |
| Ulcer of Stomach and Duodenum ..                                 | 16                                                                                                       | ..               | 1                       | ..                      | ..                       | 1                         | 6                         | 7                         | 1                  |
| Appendicitis and Typhlitis .....                                 | 11                                                                                                       | ..               | ..                      | ..                      | 4                        | ..                        | 1                         | 4                         | 2                  |
| Cirrhosis of Liver .....                                         | 18                                                                                                       | ..               | ..                      | ..                      | ..                       | ..                        | 4                         | 12                        | 2                  |
| Alcoholism .....                                                 | ..                                                                                                       | ..               | ..                      | ..                      | ..                       | ..                        | ..                        | ..                        | ..                 |
| Nephritis Acute and Chronic ....                                 | 90                                                                                                       | ..               | 1                       | 1                       | 2                        | 9                         | 13                        | 30                        | 34                 |
| Puerperal Sepsis .....                                           | 5                                                                                                        | ..               | ..                      | ..                      | ..                       | ..                        | 5                         | ..                        | ..                 |
| Other accidents and diseases of<br>Pregnancy and Parturition ... | 10                                                                                                       | ..               | ..                      | ..                      | ..                       | 2                         | 8                         | ..                        | ..                 |
| Congenital Debility and Malforma-<br>tion .....                  | 69                                                                                                       | 61               | 4                       | 3                       | 1                        | ..                        | ..                        | ..                        | ..                 |
| Premature Birth .....                                            | 92                                                                                                       | 92               | ..                      | ..                      | ..                       | ..                        | ..                        | ..                        | ..                 |
| Violent Deaths, excluding Suicide.                               | 89                                                                                                       | 3                | 3                       | 5                       | 12                       | 10                        | 17                        | 21                        | 18                 |
| Suicide .....                                                    | 25                                                                                                       | ..               | ..                      | ..                      | ..                       | 4                         | 8                         | 8                         | 5                  |
| Other Defined Diseases .....                                     | 394                                                                                                      | 33               | 3                       | 6                       | 13                       | 17                        | 47                        | 86                        | 189                |
| Diseases ill-defined or unknown .                                | 7                                                                                                        | 1                | ..                      | ..                      | ..                       | ..                        | ..                        | 4                         | 2                  |
| Totals .....                                                     | 3623                                                                                                     | 489              | 150                     | 117                     | 119                      | 149                       | 408                       | 974                       | 1217               |

TABLE M. 7.

BIRTHS IN THE CITY OF SALFORD AND IN ITS WARDS, DISTINGUISHING DEATHS OF LEGITIMATE AND ILLEGITIMATE INFANTS UNDER ONE YEAR OLD. FOR THE YEAR 1929.

| Ward.               | Births. |          | Percentage of Illegit. Births to total Births. | Deaths under One Year. |          | Proportion of Deaths under One Year per 1,000 Births. |        |          |
|---------------------|---------|----------|------------------------------------------------|------------------------|----------|-------------------------------------------------------|--------|----------|
|                     | Total.  | Illegit. |                                                | Total.                 | Illegit. | Total.                                                | Legit. | Illegit. |
| Albert Park .....   | 292     | 13       | 4.4                                            | 35                     | 1        | 120                                                   | 122    | 77       |
| Charlestown .....   | 290     | 6        | 2.1                                            | 31                     | 1        | 107                                                   | 106    | 167      |
| Claremont .....     | 64      | 3        | 4.7                                            | 7                      | 2        | 109                                                   | 82     | 667      |
| Crescent .....      | 394     | 21       | 5.3                                            | 55                     | 4        | 140                                                   | 137    | 190      |
| Docks .....         | 167     | 10       | 6.0                                            | 19                     | 2        | 114                                                   | 108    | 200      |
| Kersal .....        | 182     | 3        | 1.6                                            | 24                     | 2        | 132                                                   | 123    | 667      |
| Langworthy .....    | 181     | 3        | 1.7                                            | 20                     | ..       | 110                                                   | 112    | ..       |
| Mandley Park .....  | 221     | 2        | 0.9                                            | 22                     | 2        | 100                                                   | 91     | 1000     |
| Ordsall Park .....  | 320     | 15       | 4.7                                            | 43                     | 1        | 134                                                   | 138    | 67       |
| Regent .....        | 339     | 6        | 1.8                                            | 50                     | 2        | 147                                                   | 144    | 333      |
| St. Matthias' ..... | 312     | 15       | 4.8                                            | 36                     | 1        | 115                                                   | 118    | 67       |
| St. Paul's .....    | 263     | 4        | 1.5                                            | 40                     | 1        | 153                                                   | 151    | 250      |
| St. Thomas' .....   | 237     | 15       | 6.3                                            | 30                     | 1        | 127                                                   | 131    | 67       |
| Seedley .....       | 96      | 1        | 1.0                                            | 7                      | ..       | 73                                                    | 74     | ..       |
| Trinity .....       | 344     | 13       | 3.8                                            | 51                     | 4        | 148                                                   | 142    | 308      |
| Weaste .....        | 201     | 12       | 6.0                                            | 19                     | 5        | 94                                                    | 74     | 417      |
| Totals .....        | 3,903   | 142      | 3.6                                            | 489                    | 29       | 125                                                   | 122    | 204      |

CORRESPONDING DATA FOR THE CITY FOR THE TEN YEARS 1919-1928.

|            |        |       |     |       |     |     |     |     |
|------------|--------|-------|-----|-------|-----|-----|-----|-----|
| City ..... | 49,559 | 2,137 | 4.3 | 5,168 | 356 | 104 | 101 | 161 |
|------------|--------|-------|-----|-------|-----|-----|-----|-----|



TABLE M. 8.

SHOWING THE BIRTHS IN THE CITY OF SALFORD, DEATHS OF LEGITIMATE AND ILLEGITIMATE INFANTS UNDER ONE YEAR OLD AND THE PROPORTION OF DEATHS UNDER ONE YEAR OF AGE PER 1,000 BIRTHS DURING THE YEARS 1915 TO 1929.

| Year.    | Births. |        |          | Percentage of Il-<br>legitimate Births<br>to Total Births. | Deaths under<br>One Year. |        |          | Proportion of Deaths<br>under One Year<br>per 1,000 Births. |        |          |
|----------|---------|--------|----------|------------------------------------------------------------|---------------------------|--------|----------|-------------------------------------------------------------|--------|----------|
|          | Total.  | Legit. | Illegit. |                                                            | Total.                    | Legit. | Illegit. | Total.                                                      | Legit. | Illegit. |
| 1915.... | 5455    | 5257   | 198      | 3.6                                                        | 733                       | 692    | 41       | 134                                                         | 132    | 207      |
| 1916.... | 5091    | 4894   | 197      | 3.9                                                        | 587                       | 544    | 43       | 115                                                         | 112    | 218      |
| 1917.... | 4452    | 4234   | 218      | 4.9                                                        | 551                       | 498    | 53       | 124                                                         | 118    | 243      |
| 1918.... | 4282    | 4043   | 239      | 5.5                                                        | 478                       | 436    | 42       | 111                                                         | 107    | 175      |
| 1919.... | 4435    | 4179   | 256      | 5.8                                                        | 501                       | 466    | 35       | 113                                                         | 111    | 137      |
| 1920.... | 6441    | 6170   | 271      | 4.2                                                        | 630                       | 584    | 46       | 97                                                          | 94     | 169      |
| 1921.... | 5993    | 5702   | 291      | 4.8                                                        | 641                       | 585    | 56       | 107                                                         | 102    | 192      |
| 1922.... | 5416    | 5169   | 247      | 4.5                                                        | 599                       | 564    | 35       | 110                                                         | 109    | 141      |
| 1923.... | 5047    | 4841   | 206      | 4.1                                                        | 493                       | 458    | 35       | 98                                                          | 95     | 170      |
| 1924.... | 4745    | 4569   | 176      | 3.7                                                        | 579                       | 533    | 46       | 122                                                         | 117    | 261      |
| 1925.... | 4597    | 4398   | 199      | 4.3                                                        | 482                       | 452    | 30       | 105                                                         | 103    | 151      |
| 1926.... | 4511    | 4349   | 162      | 3.6                                                        | 464                       | 434    | 30       | 103                                                         | 100    | 185      |
| 1927.... | 4301    | 4130   | 171      | 4.0                                                        | 348                       | 328    | 20       | 81                                                          | 79     | 117      |
| 1928.... | 4073    | 3915   | 158      | 3.9                                                        | 431                       | 408    | 23       | 106                                                         | 104    | 146      |
| 1929.... | 3903    | 3761   | 142      | 3.6                                                        | 489                       | 460    | 29       | 125                                                         | 122    | 204      |

TABLE M. 14.

SHOWING THE BIRTH-RATES, ALSO RATES OF MORTALITY FROM ALL CAUSES, FROM THE SEVEN PRINCIPAL ZYMOTIC DISEASES, AND FROM PHTHISIS, CANCER, NERVOUS DISEASES, HEART DISEASES, BRONCHITIS, PNEUMONIA, AND THE INFANT MORTALITY RATE, DURING THE YEARS 1878 TO 1929.

| Years.           | Population. | Rates per 1,000 Population from |                     |                                   |            |            |                   |                 |             |            | Deaths under One Year to 1,000 Births. | Marriage Rate. |
|------------------|-------------|---------------------------------|---------------------|-----------------------------------|------------|------------|-------------------|-----------------|-------------|------------|----------------------------------------|----------------|
|                  |             | Births.                         | Deaths, All Causes. | Seven Principal Zymotic Diseases. | Phthisis.  | Cancer.    | Nervous Diseases. | Heart Diseases. | Bronchitis. | Pneumonia. |                                        |                |
| 1878...          | 160,277     | 44.7                            | 27.1                | 5.4                               | 2.7        | 0.5        | 3.5               | 1.1             | 3.6         | 1.8        | 185                                    | 17.9           |
| 1879*            | 165,899     | 43.0                            | 26.7                | 4.2                               | 2.9        | 0.4        | 3.7               | 1.2             | 4.3         | 1.8        | 170                                    | 15.2           |
| 1880...          | 171,727     | 41.4                            | 27.9                | 7.4                               | 2.7        | 0.4        | 3.2               | 0.9             | 3.4         | 1.9        | 197                                    | 16.6           |
| 1881...          | 177,760     | 38.8                            | 22.5                | 3.0                               | 2.5        | 0.5        | 3.1               | 1.1             | 3.6         | 1.6        | 163                                    | 16.4           |
| 1882...          | 179,855     | 39.7                            | 23.7                | 4.0                               | 2.4        | 0.4        | 3.6               | 1.1             | 2.8         | 1.7        | 177                                    | 16.9           |
| Average 5 years. |             | <b>41.5</b>                     | <b>25.6</b>         | <b>4.8</b>                        | <b>2.6</b> | <b>0.4</b> | <b>3.4</b>        | <b>1.1</b>      | <b>3.5</b>  | <b>1.8</b> | <b>178</b>                             | <b>16.6</b>    |
| 1883...          | 181,951     | 37.3                            | 23.6                | 3.4                               | 2.7        | 0.4        | 3.1               | 1.2             | 3.0         | 1.7        | 171                                    | 16.1           |
| 1884*            | 184,047     | 38.8                            | 24.4                | 4.4                               | 2.6        | 0.5        | 2.9               | 1.1             | 2.8         | 1.7        | 184                                    | 16.1           |
| 1885...          | 186,142     | 37.6                            | 23.0                | 3.6                               | 2.6        | 0.5        | 2.9               | 1.2             | 3.0         | 1.9        | 174                                    | 16.1           |
| 1886...          | 188,238     | 38.5                            | 24.8                | 4.1                               | 2.6        | 0.5        | 2.8               | 1.3             | 3.3         | 1.8        | 197                                    | 15.3           |
| 1887...          | 190,334     | 36.6                            | 25.5                | 4.9                               | 2.3        | 0.5        | 3.2               | 1.3             | 2.9         | 2.2        | 195                                    | 15.4           |
| Average 5 years. |             | <b>37.8</b>                     | <b>24.3</b>         | <b>4.1</b>                        | <b>2.6</b> | <b>0.5</b> | <b>3.0</b>        | <b>1.2</b>      | <b>3.0</b>  | <b>1.9</b> | <b>184</b>                             | <b>15.8</b>    |
| 1888...          | 192,429     | 37.1                            | 24.8                | 3.9                               | 2.3        | 0.5        | 3.0               | 1.1             | 3.0         | 2.1        | 184                                    | 15.2           |
| 1889...          | 194,525     | 35.9                            | 25.1                | 5.3                               | 1.9        | 0.6        | 2.5               | 1.3             | 2.6         | 1.9        | 181                                    | 16.7           |
| 1890*            | 196,621     | 36.1                            | 27.7                | 4.4                               | 2.2        | 0.5        | 2.0               | 1.3             | 3.4         | 3.8        | 198                                    | 17.5           |
| 1891...          | 198,775     | 36.3                            | 26.0                | 3.4                               | 2.2        | 0.5        | 2.2               | 1.1             | 3.7         | 3.0        | 194                                    | 18.1           |
| 1892...          | 200,833     | 35.8                            | 24.6                | 4.6                               | 1.9        | 0.6        | 2.0               | 1.2             | 2.6         | 2.9        | 186                                    | 16.7           |
| Average 5 years. |             | <b>36.2</b>                     | <b>25.6</b>         | <b>4.3</b>                        | <b>2.1</b> | <b>0.5</b> | <b>2.3</b>        | <b>1.2</b>      | <b>3.1</b>  | <b>2.7</b> | <b>189</b>                             | <b>16.8</b>    |
| 1893...          | 203,015     | 34.7                            | 24.1                | 4.2                               | 1.9        | 0.6        | 2.0               | 1.4             | 2.6         | 2.3        | 211                                    | 16.2           |
| 1894...          | 205,220     | 34.3                            | 21.1                | 3.3                               | 1.8        | 0.6        | 2.0               | 1.1             | 1.9         | 2.3        | 174                                    | 17.1           |
| 1895...          | 207,449     | 35.9                            | 25.6                | 5.0                               | 1.9        | 0.6        | 2.0               | 1.3             | 2.6         | 2.7        | 229                                    | 17.4           |
| 1896*            | 209,703     | 35.6                            | 23.1                | 4.2                               | 1.5        | 0.6        | 2.3               | 1.4             | 2.2         | 2.7        | 200                                    | 18.1           |
| 1897...          | 211,981     | 35.2                            | 23.9                | 5.6                               | 1.8        | 0.6        | 2.1               | 1.3             | 2.4         | 2.1        | 219                                    | 18.6           |
| Average 5 years. |             | <b>35.1</b>                     | <b>23.6</b>         | <b>4.5</b>                        | <b>1.8</b> | <b>0.6</b> | <b>2.1</b>        | <b>1.3</b>      | <b>2.3</b>  | <b>2.4</b> | <b>207</b>                             | <b>17.5</b>    |
| 1898...          | 214,284     | 34.9                            | 22.8                | 4.2                               | 1.8        | 0.8        | 2.2               | 1.2             | 2.2         | 2.2        | 213                                    | 18.6           |
| 1899...          | 216,612     | 34.1                            | 23.9                | 4.4                               | 1.8        | 0.6        | 2.3               | 1.4             | 2.5         | 2.7        | 211                                    | 18.7           |
| 1900...          | 218,965     | 33.3                            | 25.3                | 4.1                               | 1.8        | 0.6        | 2.4               | 1.7             | 3.2         | 2.8        | 208                                    | 17.3           |
| 1901...          | 221,212     | 29.2                            | 21.7                | 4.2                               | 1.8        | 0.7        | 1.9               | 1.5             | 2.3         | 1.9        | 205                                    | 17.9           |
| 1902*            | 222,233     | 34.0                            | 19.3                | 2.7                               | 1.7        | 0.7        | 2.0               | 1.5             | 2.2         | 2.1        | 157                                    | 18.4           |
| Average 5 years. |             | <b>33.1</b>                     | <b>22.6</b>         | <b>3.9</b>                        | <b>1.8</b> | <b>0.7</b> | <b>2.2</b>        | <b>1.5</b>      | <b>2.5</b>  | <b>2.3</b> | <b>199</b>                             | <b>18.2</b>    |
| 1903...          | 223,260     | 32.6                            | 19.4                | 2.9                               | 1.8        | 0.7        | 1.9               | 1.4             | 2.1         | 1.9        | 168                                    | 18.1           |
| 1904...          | 224,299     | 32.4                            | 21.4                | 4.4                               | 2.0        | 0.6        | 1.8               | 1.7             | 2.2         | 1.9        | 193                                    | 21.5           |
| 1905...          | 225,327     | 31.8                            | 17.7                | 2.6                               | 1.5        | 0.6        | 1.7               | 1.6             | 1.8         | 1.8        | 148                                    | 17.8           |
| 1906...          | 226,367     | 31.2                            | 19.1                | 3.3                               | 1.7        | 0.8        | 1.7               | 1.5             | 2.0         | 1.8        | 162                                    | 18.6           |
| 1907...          | 227,413     | 30.6                            | 18.5                | 2.2                               | 1.7        | 0.7        | 1.7               | 1.6             | 2.1         | 2.3        | 140                                    | 17.9           |
| Average 5 years. |             | <b>31.7</b>                     | <b>19.2</b>         | <b>3.1</b>                        | <b>1.7</b> | <b>0.7</b> | <b>1.8</b>        | <b>1.6</b>      | <b>2.0</b>  | <b>1.9</b> | <b>162</b>                             | <b>18.8</b>    |

TABLE M. 14—Continued.

| Years.           | Population. | Rates per 1,000 Population from |                     |                                   |            |            |                   |                 |             |            | Deaths under One Year to 1,000 Births. | Marriage Rate. |
|------------------|-------------|---------------------------------|---------------------|-----------------------------------|------------|------------|-------------------|-----------------|-------------|------------|----------------------------------------|----------------|
|                  |             | Births.                         | Deaths, All Causes. | Seven Principal Zymotic Diseases. | Phthisis.  | Cancer.    | Nervous Diseases. | Heart Diseases. | Bronchitis. | Pneumonia. |                                        |                |
| 1908*            | 228,463     | 31·2                            | 18·7                | 3·2                               | 1·6        | 0·7        | 1·6               | 1·4             | 1·9         | 1·7        | 153                                    | 15·5           |
| 1909..           | 229,519     | 29·5                            | 19·0                | 2·5                               | 1·5        | 0·8        | 1·7               | 1·4             | 2·3         | 2·3        | 141                                    | 15·6           |
| 1910..           | 230,579     | 28·6                            | 16·2                | 1·8                               | 1·4        | 0·9        | 1·6               | 1·4             | 1·8         | 1·7        | 131                                    | 16·0           |
| 1911..           | 231,641     | 27·4                            | 17·4                | 2·5                               | 1·6        | 0·9        | 1·3               | 1·3             | 1·8         | 1·8        | 154                                    | ..             |
| 1912..           | 232,726     | 26·8                            | 17·2                | 2·2                               | 1·5        | 1·0        | 1·4               | 1·5             | 2·1         | 2·0        | 130                                    | ..             |
| Average 5 years. |             | <b>28·7</b>                     | <b>17·7</b>         | <b>2·4</b>                        | <b>1·5</b> | <b>0·9</b> | <b>1·5</b>        | <b>1·4</b>      | <b>2·0</b>  | <b>1·9</b> | <b>142</b>                             | ..             |
| 1913*            | 233,849     | 27·0                            | 16·3                | 1·9                               | 1·4        | 1·0        | 1·4               | 1·8             | 1·8         | 1·7        | 139                                    | ..             |
| 1914..           | 234,975     | 26·9                            | 17·1                | 1·9                               | 1·6        | 1·1        | 1·4               | 1·8             | 1·8         | 1·8        | 126                                    | ..             |
| 1915..           | 219,979†    | 24·8                            | 19·1                | 2·8                               | 1·7        | 1·1        | 1·4               | 1·6             | 2·3         | 1·9        | 134                                    | ..             |
| 1916..           | 214,229†    | 21·8                            | 15·8                | 1·2                               | 1·6        | 1·0        | 1·3               | 1·3             | 1·9         | 1·5        | 115                                    | ..             |
| 1917..           | 211,373†    | 18·9                            | 16·0                | 1·6                               | 1·5        | 1·2        | 1·4               | 1·3             | 2·0         | 1·4        | 124                                    | ..             |
| Average 5 years. |             | <b>24·3</b>                     | <b>16·8</b>         | <b>1·9</b>                        | <b>1·6</b> | <b>1·0</b> | <b>1·4</b>        | <b>1·6</b>      | <b>2·0</b>  | <b>1·7</b> | <b>128</b>                             | ..             |
| 1918..           | 209,274†    | 18·3                            | 18·0                | 1·0                               | 1·6        | 1·1        | 1·2               | 1·1             | 2·3         | 1·9        | 111                                    | ..             |
| 1919..           | 226,225†    | 18·8                            | 15·8                | 0·8                               | 1·2        | 1·1        | 1·1               | 1·1             | 2·4         | 1·5        | 113                                    | ..             |
| 1920..           | 235,239     | 27·3                            | 13·7                | 0·9                               | 1·2        | 1·0        | 1·0               | 1·0             | 1·8         | 1·1        | 98                                     | ..             |
| 1921*            | 239,100     | 25·2                            | 13·9                | 1·1                               | 1·3        | 1·0        | 1·0               | 1·2             | 1·7         | 1·5        | 106                                    | ..             |
| 1922..           | 240,700     | 22·1                            | 14·6                | 1·3                               | 1·3        | 1·1        | 0·9               | 1·1             | 1·9         | 1·7        | 110                                    | ..             |
| Average 5 years. |             | <b>22·3</b>                     | <b>15·2</b>         | <b>1·0</b>                        | <b>1·3</b> | <b>1·0</b> | <b>1·0</b>        | <b>1·1</b>      | <b>2·0</b>  | <b>1·5</b> | <b>108</b>                             | ..             |
| 1923..           | 241,600     | 20·9                            | 13·5                | 0·8                               | 1·3        | 1·2        | 0·9               | 1·1             | 1·6         | 1·5        | 98                                     | ..             |
| 1924..           | 243,700     | 19·5                            | 14·5                | 1·3                               | 1·2        | 1·3        | 0·7               | 1·0             | 1·8         | 1·6        | 122                                    | ..             |
| 1925..           | 244,700     | 18·8                            | 13·9                | 1·0                               | 1·3        | 1·2        | 0·8               | 1·0             | 1·8         | 1·3        | 105                                    | ..             |
| 1926..           | 247,400     | 18·2                            | 12·4                | 0·7                               | 1·3        | 1·3        | 0·9               | 1·0             | 1·6         | 1·1        | 103                                    | ..             |
| 1927*            | 247,600     | 17·3                            | 13·9                | 0·7                               | 1·4        | 1·3        | 1·1               | 1·5             | 1·5         | 1·3        | 81                                     | ..             |
| Average 5 years. |             | <b>18·9</b>                     | <b>13·6</b>         | <b>0·9</b>                        | <b>1·3</b> | <b>1·3</b> | <b>0·9</b>        | <b>1·1</b>      | <b>1·7</b>  | <b>1·4</b> | <b>102</b>                             | ..             |
| 1928..           | 241,500     | 16·9                            | 13·3                | 0·8                               | 1·2        | 1·3        | 0·8               | 1·3             | 1·4         | 1·2        | 106                                    | ..             |
| 1929..           | 235,600     | 16·6                            | 15·4                | 1·5                               | 1·2        | 1·3        | 0·9               | 1·1             | 2·2         | 1·6        | 125                                    | ..             |

\* In the years 1879, 1884, 1890, 1895, 1902, 1908, 1913, 1921 and 1927, the facts are those registered in 53 instead of 52 weeks: corrections have therefore been made in calculating the rates. † Civil population.



## SECTION II.

# General Work of the Health Department.

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## Sanitary Circumstances and Sanitary Administration of the District.

### NATURAL AND SOCIAL CONDITIONS OF THE DISTRICT.

Salford is situated in the south-east of Lancashire and is partially divided from Manchester by the River Irwell. The older portion of the City lies along the right bank of the river and the ground rises gradually from an elevation of 85 feet above sea level to about 250 feet, the mean elevation being 140 feet.

The area of the City of Salford is 5,202 acres. The subsoil consists principally of clay interspersed with sand and gravel, with occasional patches of red sandstone.

The population is largely industrial; a considerable portion of the City is occupied by cotton factories and engineering works, with collieries on the outskirts.

The principal Docks and a portion of the Manchester Ship Canal are situated in Salford.

There is no special influence of any particular occupation on the public health of the area.

Owing to the industrial character of the City, and the close proximity of a number of other industrial towns, the atmosphere of Salford is heavily smoke polluted. This pollution contains an excessive proportion of tarry substances given off from the burning of raw coal in domestic grates. Generally speaking, the rainfall is excessive and the atmosphere humid. Owing to the pollution of the atmosphere and the excess of cloud, there is a deficiency of sunshine.

The population of Salford avail themselves of the hospital accommodation of both Salford and Manchester.

The voluntary Hospitals are :—

The Salford Royal Hospital.

The Manchester Royal Infirmary.

The Manchester Eye Hospital.

The Manchester and Salford Hospital for Skin Diseases.

The Royal Manchester Children's Hospital, Pendlebury.

The Manchester Northern Hospital.

The Manchester Jewish Hospital.

The Manchester St. Mary's Hospital.

The Manchester Ear Hospital.

The Hospitals provided by the Salford Corporation are as follows :—

| Name and Situation of Hospital.                                           | Nature of Accommodation. | Beds Provided. |
|---------------------------------------------------------------------------|--------------------------|----------------|
| Nab Top Sanatorium, Marple, Cheshire.                                     | Early Tuberculosis...    | 120            |
| Maternity Home and Babies' Hospital, Seedley Terrace, Pendleton, Salford. | Maternity Cases .....    | 10             |
|                                                                           | Sick Babies .....        | 18             |
| Ladywell Sanatorium, Eccles New Road, Salford.                            | Infectious Diseases...   | 224            |
|                                                                           | Tuberculosis .....       | 66             |
| Drinkwater Park Hospital, Prestwich, Lancashire.                          | Smallpox .....           | 40             |
| Municipal Clinic, Salford .....                                           | Venereal Disease ....    | 6              |

The Corporation have also made arrangements with the Hospitals named below for the treatment of the under-mentioned diseases :—

| Hospital.                                              | Disease.                                                           |
|--------------------------------------------------------|--------------------------------------------------------------------|
| Salford Royal Hospital .....                           | Tonsils and Adenoids in School Children.<br>Surgical Tuberculosis. |
| The Manchester and Salford Hospital for Skin Diseases. | Tubercular Diseases of the Skin.                                   |

Hope Hospital, Pendleton, Salford (900 beds), was maintained by the Salford Board of Guardians during 1929, and is one of the Institutions to be transferred to the Corporation under the Local Government Act, 1929, on 1st April, 1930.

The amount distributed by way of Poor Law Relief in 1929 in the Salford Union (which includes Pendlebury) was £99,832. 18 9.



## SALFORD LOCAL ACTS AND ORDERS.

The Salford Borough Act, 1857.

The Salford Improvement Act, 1862.

The Salford Improvement Act, 1867.

The Salford Improvement Act, 1870.

The Salford Improvement Act, 1871.

The Salford Tramways and Improvement Act, 1875.

Provisional Order relating to the Borough of Salford confirmed by the Local Government Board's Provisional Order Confirmation (No. 8) Act, 1882.

An Order, dated 20th December, 1882, and made by the Local Government Board under the provisions of the Divided Parishes and Poor Law Amendment Act, 1876, as amended and extended by the Poor Law Act, 1879, amalgamating a detached part of the Township of Pendlebury with the Township of Pendleton.

The Salford Corporation Tramways Order, 1885, confirmed by the Tramways Orders Confirmation (No. 2) Act, 1885.

The Salford Corporation Act, 1886.

The Salford Corporation Act, 1891.

Provisional Order relating to the Borough of Salford confirmed by the Local Government Board's Provisional Orders Confirmation (No. 14) Act, 1891.

Provisional Order relating to the Borough of Salford confirmed by the Local Government Board's Provisional Orders Confirmation (Housing of Working Classes) Act, 1891.

Provisional Order relating to the Borough of Salford confirmed by the Local Government Board's Provisional Order Confirmation (No. 12) Act, 1892.

The Salford Improvement Act, 1893.

The Salford Corporation Act, 1897.

The Salford Order, 1898.

An Order, dated 2nd March, 1899, and made by the Local Government Board under the provisions of the Housing of the Working Classes Act, 1890, modifying an improvement scheme relating to the Borough of Salford.

The Salford Corporation Act, 1899.

The Salford Corporation Act, 1900.

The Salford Corporation Act, 1901.

The Salford Corporation Act, 1902.

The Salford Corporation Act, 1903.

Order in Council, dated 27th March, 1905, directing that none but persons duly licensed shall let Lodgings to Seamen in the Borough of Salford.

The Salford Order, 1906.

The Salford Order, 1908.

The Salford Order, 1912.

The Salford (Union of Townships) Order, 1918.

The Salford Corporation Act, 1920.

Confirming Order of Minister of Health, dated 7th April, 1921, under Section 112 of the Public Health Act, 1875, as amended by Section 51 of the Public Health Acts Amendment Act, 1907, declaring that certain trades be Offensive Trades.

Order in Council, dated 10th August, 1921, approving scheme determining the Wards of the Borough and apportioning the Councillors.

The Salford Order, 1922.

The Salford Order, 1925.

The Salford Corporation Act, 1927.

#### ACTS OF PARLIAMENT ADOPTED BY THE COUNCIL.

The Baths and Wash-house Acts. Adopted October 4th, 1876.

Infectious Diseases (Notification) Act, 1889. Adopted 5th February, 1920.

The Infectious Disease (Prevention) Act, 1890 (except Sections 14 and 19) and Parts 2, 3, 4 and 5 of the Public Health Acts Amendment Act, 1890. Adopted January 7th, 1891.

The Private Street Works Act, 1892. Adopted April 4th, 1894.



Notification of Births Act, 1907. Adopted January 7th, 1914.

Section 95 of the Public Health Acts Amendment Act, 1907. Order issued by Local Government Board, dated 27th October, 1908, declaring the above section to be in force in the County Borough of Salford.

Public Health Acts Amendment Act, 1907, Section 51.

Public Health Acts Amendment Act, 1907. Order of Local Government Board, dated 28th August, 1909, that on and after 16th October, 1909, Section 47 and Part V. of the Act should be in force in the County Borough of Salford.

Public Health Acts Amendment Act, 1907. Order of Local Government Board, dated 22nd April, 1914, that on and after 3rd June, 1914, Sections 23, 27, 33 and 76 of the Act should be in force in the County Borough of Salford.

#### SANITARY CIRCUMSTANCES.

*Water.*—The water supply is obtained from the Manchester Corporation's reservoirs at Longdendale Valley. It is ample in quantity and excellent in quality.

*Rivers and Streams.*—The question of river pollution is in the hands of the River Irwell Conservancy Committee.

### DRAINAGE AND SEWERAGE.

The drains of the District are satisfactory. Salford sewage is conveyed to the Sewage Works at Weaste by a combined system of Sewers. The sewage is treated with Lime and Copperas, after which it is passed through settling tanks and thence through aerating filter-beds and humus tanks. The effluent from the humus tanks is discharged into the Manchester Ship Canal and the residual sludge carried out to sea by steamer.

*Scavenging.*—The removal and disposal of house refuse is under the authority of the Lighting and Cleansing Committee of the Corporation.

### SANITARY INSPECTION OF DISTRICT.

*Staff.*—The staff employed in this connection consists of the Chief Inspector, a Deputy Chief Inspector, nine Assistant Inspectors, and one Lady Inspector.

The systematic inspection of the City was conducted during the year 1929 on the same lines as in previous years. The result of the inspections may be gathered from a perusal of the "Register of Work Done," which is to be found at the end of this section of the report. It shows that the number of complaints received at the office of the Department was 4,063, as compared with 4,049 received in 1928, also that 10,094 dwelling houses were inspected during the year. The details of each section of the work will be found under the special heading.

**TABLE G. 1.**

## COMMON LODGING HOUSES, 1929.

|                                                | Wards.    |             |               |          | Total.     |
|------------------------------------------------|-----------|-------------|---------------|----------|------------|
|                                                | Crescent. | St. Paul's. | St. Thomas's. | Trinity. |            |
| Number on Register .....                       | 7         | 1           | 1             | 6        | <b>15</b>  |
| Number added to Register in 1929....           | ..        | ..          | ..            | ..       | ..         |
| Number removed from Register in 1929 ..        | ..        | ..          | ..            | 1        | <b>1</b>   |
| Number of Rooms.....                           | 60        | 6           | 8             | 52       | <b>126</b> |
| „ „ Beds .....                                 | 294       | 25          | 23            | 582      | <b>924</b> |
| Average Number occupied each night—Males ..... | 151       | 16          | 10            | 430      | <b>607</b> |
| Females .....                                  | ..        | ..          | ..            | ..       | ..         |
| Notices served on Landlords .....              | 6         | ..          | ..            | 2        | <b>8</b>   |
| „ „ Keepers.....                               | ..        | ..          | ..            | ..       | ..         |
| Number of Day Inspections .....                | 203       | 30          | 30            | 158      | <b>421</b> |
| Night „ .....                                  | 14        | 4           | 4             | 32       | <b>54</b>  |

**Common Lodging Houses.**

There were 15 Common Lodging Houses on the register during the year, including Salford House in Bloom Street ; seven are in the Crescent Ward, six in Trinity, one in St. Paul's, and one in St. Thomas's wards. These houses contain 126 rooms, with 924 beds. The average number of beds occupied per night was 607 for males and none for females. Four hundred and twenty-one inspections were made during the day time and 54 at night. One house in Trinity Ward was



closed down on December 14th thus leaving 14 houses still on the register.

The addresses of and particulars relating to these lodging houses are as follows :—

| Address.                         | Accommodation.<br>Sleeping<br>Rooms. | Lodgers. | Total<br>number<br>of lodgers<br>who could<br>be accom-<br>modated<br>during<br>the year. | Total<br>number<br>of lodgers<br>accom-<br>modated<br>during<br>the year. |
|----------------------------------|--------------------------------------|----------|-------------------------------------------------------------------------------------------|---------------------------------------------------------------------------|
| 17, Bolton Street .....          | 5                                    | 49       | 17,885                                                                                    | 15,061                                                                    |
| 61, Bury Street .....            | 7                                    | 33       | 12,045                                                                                    | 9,379                                                                     |
| 32/34, Chapel Street .....       | 14                                   | 88       | 32,120                                                                                    | 12,083                                                                    |
| 55, Chapel Street .....          | 15                                   | 85       | 27,455                                                                                    | 17,818                                                                    |
| 41A, Gravel Lane .....           | 5                                    | 42       | 15,330                                                                                    | 10,482                                                                    |
| "Salford House," Bloom Street... | 6                                    | 285      | 104,025                                                                                   | 91,780                                                                    |
| 21, East Ordsall Lane .....      | 2                                    | 16       | 5,840                                                                                     | 3,398                                                                     |
| 113, Oldfield Road.....          | 7                                    | 27       | 9,855                                                                                     | 4,746                                                                     |
| 2 and 1A, Park Place .....       | 24                                   | 125      | 45,625                                                                                    | 20,062                                                                    |
| 2, Park Place .....              | 13                                   | 26       | 9,490                                                                                     | 6,418                                                                     |
| 3, Park Place .....              | 4                                    | 43       | 15,695                                                                                    | 4,918                                                                     |
| 13, Windsor .....                | 4                                    | 15       | 5,475                                                                                     | 3,395                                                                     |
| 2, Comus Street .....            | 6                                    | 42       | 15,330                                                                                    | 11,867                                                                    |
| 1/5, Travis Court .....          | 8                                    | 23       | 8,395                                                                                     | 3,683                                                                     |
| 2, West High Street.....         | 6                                    | 25       | 9,125                                                                                     | 5,813                                                                     |

The total number of lodgers who could be accommodated during the year, in all the houses, was 337,260, and the total number actually accommodated was 220,903, a difference of 116,357.

Of the 924 beds, an average of 607 was occupied each night, leaving an average of 317 beds empty.

The above figures show that although the lodging houses as a whole (excluding the Corporation's own institution—"Salford House") were occupied to only 55·4 per cent of their full capacity, "Salford House" itself was occupied to the extent of 88·2 per cent of its total accommodation, and this in spite of the fact that its

charges are about 25 per cent higher than those obtaining in ordinary lodging houses. These figures would appear to bear out the statement made in the special report upon "Salford House" contained in my Report for the year 1926 "that the Institution is appreciated and does meet a very real need."

These Lodging Houses have been kept in good and clean condition during the year, and the Byelaws have been observed.

### **Houses Sub-let in Lodgings.**

There are 312 houses let in apartments in the City; these contain 1,676 rooms. Thirty-six houses were registered during the year and 4 discontinued.

The registration of these houses gives us power to inspect them at any time. They have been inspected from time to time, and they have received 1,438 inspections in the day time and 287 at night.

Throughout the year the District Inspectors have given much attention to the question of overcrowding as regards many of these houses.

The extreme difficulty of obtaining housing accommodation in Salford has deterred the Committee from taking action for overcrowding.

### **Seamen's Lodging Houses.**

There are 8 Seamen's Lodging Houses in the City, containing 30 rooms and 85 beds. There have been



8 applications for renewals and new licences. Two houses were given up during the year, and one house has been converted into two separate houses.

The Byelaws in force regulating these houses have been carried out, and the houses generally kept in good and clean condition. One hundred and five visits have been made during the day time and 17 visits during the night time.

The addresses of and particulars relating to these houses are as follows :—

| Address.                       | Accommodation.<br>Sleeping<br>Rooms. | Lodgers. |
|--------------------------------|--------------------------------------|----------|
| 129/131, Trafford Road .....   | 4                                    | 17       |
| 69, Monmouth Street .....      | 6                                    | 12       |
| 107/109, Garfield Street ..... | 8                                    | 16       |
| 53, Trafford Road .....        | 5                                    | 26       |
| 31, Gledhill Street.....       | 1                                    | 1        |
| 20, Gledhill Street.....       | 1                                    | 3        |
| 66, Monmouth Street .....      | 1                                    | 2        |
| 68, Monmouth Street .....      | 4                                    | 8        |

The keepers of these houses are not required to submit a Return of the number of Seamen sleeping on the premises, but it is the general impression from the visits made by the Inspectors that these houses are not used to the fullest extent. This is no doubt due to the slackness of trade in the shipping business, also to the increased proportion of American shipping manned by American Crews who, whilst in Port, live and sleep on board.



## Workshops.

At the end of the year there were 917 workshops on the register. These have been regularly inspected by the Lady Inspector of Workshops and by the District Inspectors, the Lady Inspector visiting those workshops where females are employed and the District Inspectors visiting those premises where males only are employed.

One hundred and seventy-three defects were found in the workshops, the particulars being given in Table B. The chief defect was want of cleanliness both in the workshops and bake-houses, which was found in 57 cases and 88 cases respectively. In each case the tenant was cautioned and the defect remedied.

*Re* OUTWORKERS.—The women outworkers' premises are visited by the Lady Inspector of Workshops, and those of the men by the District Inspectors.

During the year 193 visits have been paid.

During this year the Lady Inspector of Workshops has inspected 261 Fish and Chip Restaurants, where women are employed, to ascertain the conditions as to cleanliness and sanitation.

A number of these premises are still being found where the yard space has been enclosed, thereby preventing free ventilation to the sanitary accommodation. Where these have been found, the tenants have been warned, and the structures removed.

During the year it was reported to this Department that a certain firm was employing a number of people in the stamping and threading of small lead seals.

The names and addresses of these people were not on the authorised List of Outworkers, and as there was a probable risk of lead poisoning in the manipulation of these goods, the Factory Inspector was notified and special visits were made to the Factory concerned. Since then a List of Outworkers has been received and the houses of the Outworkers visited, and are being kept under observation. So far no case of lead poisoning has been reported.

## Factories, Workshops, Workplaces, and Homework.

### A.—Inspection.

INCLUDING INSPECTIONS MADE BY SANITARY INSPECTORS OR  
INSPECTORS OF NUISANCES DURING THE YEAR 1929

| Premises.<br><br>(1)                                                                             | Number of           |                            |                           |
|--------------------------------------------------------------------------------------------------|---------------------|----------------------------|---------------------------|
|                                                                                                  | Inspections.<br>(2) | Written<br>Notices.<br>(3) | Prosecu-<br>tions.<br>(4) |
| Factories.....<br>(Including Factory Laundries.)                                                 | 27                  | 2                          | ..                        |
| Workshops .....<br>(Including Workshop Laundries.)                                               | 3207                | 14                         | ..                        |
| Workplaces .....<br>(Other than Outworkers' prem-<br>ises included in Part 3 of this<br>Report.) | 345                 | ..                         | ..                        |
| Total .....                                                                                      | 3579                | 16                         | ..                        |



B.—Defects Found.

| Premises.<br><br>(1)                                                                                                  | Number of Defects. |                                  |                                              | Number<br>of<br>Prosecutions.<br><br>(5) |    |    |
|-----------------------------------------------------------------------------------------------------------------------|--------------------|----------------------------------|----------------------------------------------|------------------------------------------|----|----|
|                                                                                                                       | Found.<br><br>(2)  | Remedied.<br><br>(3)             | Referred to<br>H.M.<br>Inspector.<br><br>(4) |                                          |    |    |
| <i>Nuisances under the Public Health Act—*</i>                                                                        |                    |                                  |                                              |                                          |    |    |
| Want of cleanliness . . . . .                                                                                         | 145                | 125                              | 2                                            | ..                                       |    |    |
| Want of ventilation . . . . .                                                                                         | 1                  | 1                                | 1                                            | ..                                       |    |    |
| Overcrowding . . . . .                                                                                                | ..                 | ..                               | ..                                           | ..                                       |    |    |
| Want of drainage of floors . . . . .                                                                                  | 3                  | 3                                | ..                                           | ..                                       |    |    |
| Other nuisances . . . . .                                                                                             | 13                 | 13                               | 1                                            | ..                                       |    |    |
| Sanitary<br>accommo-<br>dation                                                                                        | {                  | insufficient . . . . .           | 8                                            | 10                                       | 12 | .. |
|                                                                                                                       |                    | unsuitable or defective . . .    | 3                                            | 1                                        | 2  | .. |
|                                                                                                                       |                    | not separate for sexes . . . . . | ..                                           | ..                                       | .. | .. |
| <i>Offences under the Factory and Workshop Act—</i>                                                                   |                    |                                  |                                              |                                          |    |    |
| Illegal occupation of underground bake-<br>house (s. 101) . . . . .                                                   | ..                 | ..                               | ..                                           | ..                                       |    |    |
| Breach of special sanitary requirements<br>for bakehouses (ss. 97 to 100) . . . . .                                   | ..                 | ..                               | ..                                           | ..                                       |    |    |
| Other offences (excluding offences relat-<br>ing to outwork which are included in<br>Part 3 of this Report) . . . . . | ..                 | ..                               | ..                                           | .                                        |    |    |
| Total . . . . .                                                                                                       | 173                | 153                              | 18                                           | .                                        |    |    |

\* Including those specified in sections 2, 3, 7, and 8 of the Factory and Workshop Act as remediable under the Public Health Acts.

| NATURE OF WORK.                | OUTWORKERS' LISTS, SECTION 107 |             |                           |               |                        |                                                                    |                                                                   |                                                             |                                                |                        | Number of Inspections of Outworkers' premises. | OUTWORK IN UN- WHOLESOME PREMISES, SECTION 108. |                 |               | OUTWORK IN INFECTED PREMISES, SECTIONS 109, 110. |                      |                              |                |               |      |
|--------------------------------|--------------------------------|-------------|---------------------------|---------------|------------------------|--------------------------------------------------------------------|-------------------------------------------------------------------|-------------------------------------------------------------|------------------------------------------------|------------------------|------------------------------------------------|-------------------------------------------------|-----------------|---------------|--------------------------------------------------|----------------------|------------------------------|----------------|---------------|------|
|                                | Lists received from Employers. |             |                           |               |                        | Number of Addresses of Outworkers received from other Authorities. | Number of Addresses of Outworkers forwarded to other Authorities. | Notices served on Occupiers as to keeping or sending lists. | Prosecutions.                                  |                        |                                                | Instances.                                      | Notices served. | Prosecutions. | Instances.                                       | Orders made, S. 110. | Prosecutions, S.S. 109, 110. |                |               |      |
|                                | Sending twice in the year.     |             | Sending once in the year. |               | Failing to keep lists. |                                                                    |                                                                   |                                                             | Failing to keep or permit inspection of lists. | Failing to send lists. |                                                |                                                 |                 |               |                                                  |                      |                              |                |               |      |
|                                | Lists.                         | Outworkers. | Con- tractors.            | Work- people. |                        |                                                                    |                                                                   |                                                             |                                                |                        | Lists.                                         |                                                 |                 |               |                                                  |                      |                              | Con- tractors. | Work- people. |      |
|                                |                                |             |                           |               | (2)                    | (3)                                                                | (4)                                                               | (5)                                                         | (6)                                            | (7)                    |                                                | (8)                                             | (9)             | (10)          | (11)                                             | (12)                 | (13)                         |                |               | (14) |
| * Wearing Apparel—             | 28                             | 22          | 64                        | 4             | 3                      | 2                                                                  | 206                                                               | 69                                                          | ..                                             | ..                     | ..                                             | 181                                             | ..              | ..            | ..                                               | ..                   | ..                           | ..             | ..            | ..   |
| 1. Making, &c. ....            | ..                             | ..          | ..                        | ..            | ..                     | ..                                                                 | ..                                                                | ..                                                          | ..                                             | ..                     | ..                                             | ..                                              | ..              | ..            | ..                                               | ..                   | ..                           | ..             | ..            | ..   |
| 2. Cleaning and washing ..     | ..                             | ..          | ..                        | ..            | ..                     | ..                                                                 | ..                                                                | ..                                                          | ..                                             | ..                     | ..                                             | ..                                              | ..              | ..            | ..                                               | ..                   | ..                           | ..             | ..            | ..   |
| Lace, lace curtains and nets.. | ..                             | ..          | ..                        | ..            | ..                     | ..                                                                 | ..                                                                | ..                                                          | ..                                             | ..                     | ..                                             | ..                                              | ..              | ..            | ..                                               | ..                   | ..                           | ..             | ..            | ..   |
| Artificial flowers .....       | ..                             | ..          | ..                        | ..            | ..                     | ..                                                                 | ..                                                                | ..                                                          | ..                                             | ..                     | ..                                             | ..                                              | ..              | ..            | ..                                               | ..                   | ..                           | ..             | ..            | ..   |
| Nets, other than wire nets...  | ..                             | ..          | ..                        | ..            | ..                     | ..                                                                 | ..                                                                | ..                                                          | ..                                             | ..                     | ..                                             | ..                                              | ..              | ..            | ..                                               | ..                   | ..                           | ..             | ..            | ..   |
| Tents .....                    | ..                             | ..          | ..                        | ..            | ..                     | ..                                                                 | ..                                                                | ..                                                          | ..                                             | ..                     | ..                                             | ..                                              | ..              | ..            | ..                                               | ..                   | ..                           | ..             | ..            | ..   |
| Sacks .....                    | ..                             | ..          | ..                        | ..            | ..                     | ..                                                                 | 6                                                                 | ..                                                          | ..                                             | ..                     | ..                                             | 6                                               | ..              | ..            | ..                                               | ..                   | ..                           | ..             | ..            | ..   |
| Furniture and upholstery ..    | ..                             | ..          | ..                        | ..            | ..                     | ..                                                                 | ..                                                                | ..                                                          | ..                                             | ..                     | ..                                             | ..                                              | ..              | ..            | ..                                               | ..                   | ..                           | ..             | ..            | ..   |
| Fur pulling .....              | ..                             | ..          | ..                        | ..            | ..                     | ..                                                                 | ..                                                                | ..                                                          | ..                                             | ..                     | ..                                             | ..                                              | ..              | ..            | ..                                               | ..                   | ..                           | ..             | ..            | ..   |
| Feather sorting .....          | ..                             | ..          | ..                        | ..            | ..                     | ..                                                                 | ..                                                                | ..                                                          | ..                                             | ..                     | ..                                             | ..                                              | ..              | ..            | ..                                               | ..                   | ..                           | ..             | ..            | ..   |
| Umbrellas, &c. ....            | ..                             | ..          | ..                        | ..            | ..                     | ..                                                                 | 4                                                                 | ..                                                          | ..                                             | ..                     | ..                                             | 4                                               | ..              | ..            | ..                                               | ..                   | ..                           | ..             | ..            | ..   |
| Carding, &c., of buttons, &c.. | ..                             | ..          | ..                        | ..            | ..                     | ..                                                                 | ..                                                                | ..                                                          | ..                                             | ..                     | ..                                             | ..                                              | ..              | ..            | ..                                               | ..                   | ..                           | ..             | ..            | ..   |
| Paper bags and boxes....       | ..                             | ..          | ..                        | ..            | ..                     | ..                                                                 | ..                                                                | ..                                                          | ..                                             | ..                     | ..                                             | ..                                              | ..              | ..            | ..                                               | ..                   | ..                           | ..             | ..            | ..   |
| Basket making.....             | ..                             | ..          | ..                        | ..            | ..                     | ..                                                                 | ..                                                                | ..                                                          | ..                                             | ..                     | ..                                             | ..                                              | ..              | ..            | ..                                               | ..                   | ..                           | ..             | ..            | ..   |
| Brush making .....             | 2                              | ..          | 2                         | ..            | ..                     | ..                                                                 | ..                                                                | ..                                                          | ..                                             | ..                     | ..                                             | 2                                               | ..              | ..            | ..                                               | ..                   | ..                           | ..             | ..            | ..   |
| Racquet and tennis balls ..    | ..                             | ..          | ..                        | ..            | ..                     | ..                                                                 | ..                                                                | ..                                                          | ..                                             | ..                     | ..                                             | ..                                              | ..              | ..            | ..                                               | ..                   | ..                           | ..             | ..            | ..   |
| Stuffed toys .....             | ..                             | ..          | ..                        | ..            | ..                     | ..                                                                 | ..                                                                | ..                                                          | ..                                             | ..                     | ..                                             | ..                                              | ..              | ..            | ..                                               | ..                   | ..                           | ..             | ..            | ..   |
| File making .....              | ..                             | ..          | ..                        | ..            | ..                     | ..                                                                 | ..                                                                | ..                                                          | ..                                             | ..                     | ..                                             | ..                                              | ..              | ..            | ..                                               | ..                   | ..                           | ..             | ..            | ..   |
| Electro plate .....            | ..                             | ..          | ..                        | ..            | ..                     | ..                                                                 | ..                                                                | ..                                                          | ..                                             | ..                     | ..                                             | ..                                              | ..              | ..            | ..                                               | ..                   | ..                           | ..             | ..            | ..   |
| Cables and chains .....        | ..                             | ..          | ..                        | ..            | ..                     | ..                                                                 | ..                                                                | ..                                                          | ..                                             | ..                     | ..                                             | ..                                              | ..              | ..            | ..                                               | ..                   | ..                           | ..             | ..            | ..   |
| Cart gear.....                 | ..                             | ..          | ..                        | ..            | ..                     | ..                                                                 | ..                                                                | ..                                                          | ..                                             | ..                     | ..                                             | ..                                              | ..              | ..            | ..                                               | ..                   | ..                           | ..             | ..            | ..   |
| Locks, latches and keys .....  | ..                             | ..          | ..                        | ..            | ..                     | ..                                                                 | ..                                                                | ..                                                          | ..                                             | ..                     | ..                                             | ..                                              | ..              | ..            | ..                                               | ..                   | ..                           | ..             | ..            | ..   |
| Anchor3 and grapnels .....     | ..                             | ..          | ..                        | ..            | ..                     | ..                                                                 | ..                                                                | ..                                                          | ..                                             | ..                     | ..                                             | ..                                              | ..              | ..            | ..                                               | ..                   | ..                           | ..             | ..            | ..   |
| Pea picking.....               | ..                             | ..          | ..                        | ..            | ..                     | ..                                                                 | ..                                                                | ..                                                          | ..                                             | ..                     | ..                                             | ..                                              | ..              | ..            | ..                                               | ..                   | ..                           | ..             | ..            | ..   |
| Total .....                    | 30                             | 22          | 66                        | 4             | 3                      | 2                                                                  | 216                                                               | 69                                                          | ..                                             | ..                     | ..                                             | 193                                             | ..              | ..            | ..                                               | ..                   | ..                           | ..             | ..            | ..   |

\* List of Industries as prescribed by Home Office.

D.—Registered Workshops.

| Workshops on the Register (s. 131) at the end of the year.<br>(1) | Number.<br>(2) |
|-------------------------------------------------------------------|----------------|
| Tenement Workshops .....                                          | 10             |
| Domestic Workshops .....                                          | 240            |
| Laundries .....                                                   | 14             |
| Workshop Bakehouses.....                                          | 253            |
| Other Workshops .....                                             | 400            |
| Total number of Workshops on Register.. ...                       | 917            |

E.—Other Matters.

| Class.<br>(1)                                                                                                                                                           | Number.<br>(2)                                                                                                 |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------|
| Matters notified to H.M. Inspector of Factories—                                                                                                                        |                                                                                                                |
| Failure to affix abstract of the Factory and Workshop Act<br>(s. 133) .....                                                                                             | 10                                                                                                             |
| Action taken in matters referred by {<br>H.M. Inspector as remediable {<br>under the Public Health Acts, {<br>but not under the Factory and {<br>Workshop Act (s. 5). { | Notified by H.M. In-<br>spectator ..... 14<br>Reports (of action<br>taken) sent to H.M.<br>Inspector ..... 15* |
| Other.....                                                                                                                                                              | ..                                                                                                             |
| Underground Bakehouses (s. 101)—                                                                                                                                        |                                                                                                                |
| Certificates granted during the year .....                                                                                                                              | .                                                                                                              |
| In use at the end of the year .....                                                                                                                                     | ..                                                                                                             |

\* Including reports of action taken in cases notified in previous year.



F.—Additional Sanitation for Retail Bakehouses,  
Sections 97—102.

Number of such premises in the district, 253.

Note as to their sanitary condition. Ground floor bakehouses—Good.

Action taken as to retail bakehouses in 1929, 2 Notices served.

| Action taken.                         | No. of<br>Defects<br>found. | Notices<br>served. | Legal<br>Pro-<br>ceedings. | Defects<br>remedied. | Remarks. |
|---------------------------------------|-----------------------------|--------------------|----------------------------|----------------------|----------|
| As to Closets, &c., Sec. 97 . . . . . | ..                          | ..                 | ..                         | ..                   |          |
| As to Water Cisterns, Sec. 97 . . . . | ..                          | ..                 | ..                         | ..                   |          |
| As to Drain Openings, Sec. 97 . . . . | ..                          | ..                 | ..                         | ..                   |          |
| As to Limewashing, &c., Sec. 97 ..    | 82                          | ..                 | ..                         | 81                   |          |
| As to Sleeping Places, Sec. 100 ...   | ..                          | ..                 | ..                         | ..                   |          |

Any proceedings under Section 98 as to retail bakehouses sanitarily unfit, Nil.

UNDERGROUND BAKEHOUSES.

Number of such premises in district, one not in use at present.

Number certified by District Council under Section 101 (2) in 1929, Nil.

BAKEHOUSES, 1929.

|                                                                      |                                 |
|----------------------------------------------------------------------|---------------------------------|
| Registered . . . . .                                                 | 253                             |
| Added to Register . . . . .                                          | 23                              |
| Discontinued . . . . .                                               | 8                               |
| Changed Hands . . . . .                                              | 8                               |
| Number of Underground Bakehouses Certified by<br>Authority . . . . . | 1 but not<br>at present in use. |
| Total Number of Ovens . . . . .                                      | 349                             |
| Employees—Males . . . . .                                            | 219                             |
| Females . . . . .                                                    | 475                             |
| Notices Served . . . . .                                             | 2                               |

### Smoke Nuisance.

Particulars as to smoke nuisance caused by firms during the year 1929, and dealt with by the Health Committee :

Eleven Notices were issued under the Public Health Act.

The general improvement in the emission of black smoke continues, the periods of emission being still of shorter duration than formerly, although two firms were summoned by the Health Committee and were fined 30s. and 10s. respectively and an Order to Abate made in each case.

During the year, 3,305 smoke observations have been made as against 3,120 in the year 1928, and 3,138 in the year 1927.

One hundred and thirty-four stokers and others were cautioned by the Inspectors for negligence in firing the furnaces under their charge, at the same time 25 firms were reported to and dealt with by the Health Committee, also 25 cautionary Notices were issued to firms with a table of smoke observations taken from their chimneys.

Several chimneys have been raised during the year in connection with small workshops.

Classes for stokers were again formed at the Royal Technical College during the summer months, consisting of a course of 10 lectures in connection with Smoke

Abatement and Fuel Economy. These lectures had an average attendance of 10 men from various firms in the City, and I am of opinion that the classes are yielding good results.

TABLE SHOWING THE NUMBER OF HALF-HOURLY OBSERVATIONS  
TAKEN DURING THE YEAR 1929.

| Minutes of Black Smoke<br>emitted in half-an-hour. | No. of<br>Observations<br>taken. | Percentage<br>to<br>Total. |
|----------------------------------------------------|----------------------------------|----------------------------|
| No Black Smoke .....                               | 2,459                            | 74·4                       |
| One Minute .....                                   | 821                              | 24·8                       |
| Two Minutes .....                                  | 12                               | 00·4                       |
| Three Minutes.....                                 | 3                                | 00·1                       |
| Over Three Minutes.....                            | 10                               | 00·3                       |
| Total Observations.....                            | 3,305                            | 100·0                      |

### Manure Receptacles, and Removal of Manure and other Offensive Matter.

The Byelaws with respect to receptacles for manure and the weekly removal of manure, filth, or other offensive or noxious matter, which came into operation towards the end of 1909, have been enforced during the past year, and special attention has been paid to stable yards where manure quickly accumulates and where no receptacle is provided.



The Byelaws as regards the regular removal of manure have been well observed.

### Canal Boats Acts.

|                                                         |     |
|---------------------------------------------------------|-----|
| Number of canal boats inspected .....                   | 182 |
| Number of canal boats conforming to Acts .....          | 178 |
| Number of canal boats with one or more infringements .. | 4   |
| Total number of infringements .....                     | 4   |
| Registration .....                                      | ..  |
| Absence of certificates .....                           | ..  |
| Dilapidation of certificate .....                       | ..  |
| Marking .....                                           | 2   |
| Overcrowding .....                                      | ..  |
| Separation of sexes .....                               | ..  |
| Cleanliness .....                                       | ..  |
| Ventilation .....                                       | ..  |
| Ventilators obstructed .....                            | ..  |
| Painting .....                                          | 2   |
| Provision of water vessel .....                         | ..  |
| Water vessels broken .....                              | ..  |
| Removal of bilge water .....                            | ..  |
| Boats defective and leaking .....                       | ..  |
| Dilapidation .....                                      | ..  |
| Stoves defective .....                                  | ..  |
| Stove pipes defective .....                             | ..  |
| Pumps defective .....                                   | ..  |
| Admittance of Inspector .....                           | ..  |
| Notification of infectious disease .....                | ..  |
| Certificates not identifying owners .....               | ..  |
| Loading manure without tight bulkheads .....            | ..  |
| Number of notices served .....                          | 3   |

Other steps to secure compliance : One letter written to Owner.

Detention of boats for cleansing and disinfection : None.

Legal proceedings taken : None.

Number of boats on register: Not a Registration Authority.

|                                                           |     |
|-----------------------------------------------------------|-----|
| Canal boats registered to carry (number of persons) ..... | 914 |
| Men found on the boats .....                              | 330 |
| Women found on the boats .....                            | 35  |
| Children under 12 years found on the boats                | 43  |

Drainage Inspection.

The testing and examination of all existing drainage is carried out by this Department. Two Inspectors and four labourers are kept continually at work examining drainage, and the following table gives the detailed results of their labours:—

|                                           |       |
|-------------------------------------------|-------|
| Number of tests made .....                | 698   |
| „ applications from householders .....    | 5     |
| „ houses affected by the tests .....      | 949   |
| „ notices and reports issued .....        | 372   |
| „ notices and reports complied with ..... | 372   |
| „ drain inlets opened and cleared .....   | 2,427 |

INSANITARY CONDITIONS FOUND.

Defects.

|                                                                  |       |
|------------------------------------------------------------------|-------|
| Number of drains wholly and partly choked .....                  | 672   |
| „ drains defectively constructed .....                           | 329   |
| „ gully traps badly laid .....                                   | 66    |
| „ drains defectively trapped .....                               | 27    |
| „ waste pipes defectively trapped or connected to drains .....   | 25    |
| „ downspouts connected to drains .....                           | 29    |
| „ soil pipes with leaking joints or defectively ventilated ..... | 41    |
| „ defective water closets .....                                  | 117   |
| Total defects .....                                              | 1,306 |

RECONSTRUCTION OF DRAINS AND THE CONSTRUCTION  
OF NEW DRAINS.

|                                      |     |
|--------------------------------------|-----|
| Number of tests applied .....        | 578 |
| „ houses affected .....              | 540 |
| „ passage main drains affected ..... | 26  |

MODE WHEEL AMBULANCE AND  
DISINFECTING STATION.

The Ambulance and Disinfecting Station situated in Mode Wheel Road is under the control of the Medical Officer of Health. The Station is used for the following purposes :—

(a) The disinfecting of bedding, clothing, etc., from the homes of persons suffering from infectious disease, by means of high-pressure steam disinfection.

(b) As a Dépôt for the disinfectors employed in disinfecting houses, schools, and public institutions, in which a case of infectious disease has occurred.

(c) As a station for the bathing of verminous persons and the disinfection of their clothing.

(d) The bathing of persons suffering from scabies (particularly school children), and the disinfection of their clothing.

(e) The bathing of midwives who have been in contact with cases of puerperal fever, and the disinfection of their clothing and instruments.

(f) As a Garage for the three motor ambulances required to take persons to and from Hospital and



the three motor vans used to collect and deliver bedding, etc., before and after disinfection and in connection with the cleansing of conveniences. The Station is also used as a repair depôt for the whole of the motor vehicles used in the Department.

The Staff employed at the Station is as follows :—

Foreman.  
Caretaker.  
Motor Mechanic.  
Four Disinfectors.  
Four Drivers.

The following is a summary of the work done at the Mode Wheel Disinfecting Station during 1929 :—

| AMBULANCES.                                                                    |                   |                        |                 |
|--------------------------------------------------------------------------------|-------------------|------------------------|-----------------|
|                                                                                | Salford<br>Cases. | Out-District<br>Cases. | Total<br>Cases. |
| Number of journeys removing patients to Hospital.....                          | 1,334             | 399                    | 1,733           |
| Number of journeys removing patients from Hospital to their homes.....         | 129               | —                      | 129             |
| Number of houses visited by ambulances removing bedding for disinfection. .... | 775               | 31                     | 786             |

| VANS.                                                                       |       |     |       |
|-----------------------------------------------------------------------------|-------|-----|-------|
| Number of houses visited by vans returning bedding after disinfection ..... | 1,900 | 185 | 2,085 |

In addition, 1,262 journeys to Hospital for purposes other than removal of patients were made by motor vehicles, and 60 journeys were made for the purpose of taking home children after operative treatment for tonsils and adenoids. 213 journeys were made in connection with the treatment of children suffering from scabies. There were also 766 journeys for miscellaneous purposes.

## DISINFECTIONS.

|                                                 |       |
|-------------------------------------------------|-------|
| Number of houses disinfected .....              | 2,047 |
| „ rooms disinfected .....                       | 5,063 |
| „ bundles of clothing and bedding disinfected.. | 3,600 |
| „ books disinfected .....                       | 223   |
| „ schools disinfected .....                     | 3     |
| „ hospitals disinfected .....                   | 24    |
| „ ships disinfected .....                       | 3     |

## BATHING AND DISINFECTION OF CLOTHING.

|                                       |       |
|---------------------------------------|-------|
| Midwives .....                        | 39    |
| Smallpox convalescents .....          | 34    |
| „ contacts .....                      | —     |
| Verminous children .....              | 23    |
| „ adults .....                        | —     |
| Children suffering from scabies ..... | 1,449 |

During the year 1929 a new “Austin” Ambulance was purchased and brought into use in place of one of the existing Ambulances.

### Sanitary Conveniences.

There are 21 conveniences for Males and 3 for Females in the City, under the control of the Health Committee, namely :—

| SITUATION.                                              | MALES.           |                  |                |                | FEMALES.         |                |                |
|---------------------------------------------------------|------------------|------------------|----------------|----------------|------------------|----------------|----------------|
|                                                         | Urinal<br>Stalls | Water<br>Closets | Wash<br>Basins | Atten-<br>dant | Water<br>Closets | Wash<br>Basins | Atten-<br>dant |
| Trinity Market .....                                    | 6                | 3                | 3              | 1              | 3                | 3              | 1              |
| Trafford Road (Eccles New<br>Road corner) .....         | 15               | 4                | 4              | 1              | ..               | ..             | ..             |
| Trafford Road (Ordsall Park) ..                         | 12               | 4                | 6              | 1              | ..               | ..             | ..             |
| Church Street (near the corner<br>of Broad Street)..... | 10               | 2                | 3              | 1              | 3                | 3              | 1              |
| Cross Lane .....                                        | ..               | ..               | ..             | ..             | 4                | 4              | 1              |
| Oldfield Road (Corner of Chapel<br>Street) .....        | 6                | ..               | ..             | ..             | ..               | ..             | ..             |
| Liverpool Street .....                                  | 4                | ..               | ..             | ..             | ..               | ..             | ..             |
| Bolton Road (Junction of Clare-<br>mont Road) .....     | 4                | ..               | ..             | ..             | ..               | ..             | ..             |
| Broughton Road.....                                     | 16               | ..               | ..             | ..             | ..               | ..             | ..             |
| Windsor Bridge .....                                    | 6                | ..               | ..             | ..             | ..               | ..             | ..             |
| Blucher Street.....                                     | 8                | ..               | ..             | ..             | ..               | ..             | ..             |
| Stevenson Street.....                                   | 3                | ..               | ..             | ..             | ..               | ..             | ..             |
| Park Lane .....                                         | 5                | ..               | ..             | ..             | ..               | ..             | ..             |
| Broad Street .....                                      | 3                | ..               | ..             | ..             | ..               | ..             | ..             |
| Greengate Arch.....                                     | 6                | ..               | ..             | ..             | ..               | ..             | ..             |
| Eccles New Road.....                                    | 6                | ..               | ..             | ..             | ..               | ..             | ..             |
| Broughton Bridge .....                                  | 8                | ..               | ..             | ..             | ..               | ..             | ..             |
| Frederick Road.....                                     | 4                | ..               | ..             | ..             | ..               | ..             | ..             |
| Moor Lane .....                                         | 6                | ..               | ..             | ..             | ..               | ..             | ..             |
| Cross Lane .....                                        | 5                | ..               | ..             | ..             | ..               | ..             | ..             |
| Albert Park .....                                       | 6                | ..               | ..             | ..             | ..               | ..             | ..             |
| Crescent, near Victoria Arch....                        | 6                | ..               | ..             | ..             | ..               | ..             | ..             |



**TABLE G. 2.****NEW HOUSES ERECTED AND HOUSES DEMOLISHED IN 1929.**

| Wards.              | Houses<br>erected. | Houses<br>demolished. |
|---------------------|--------------------|-----------------------|
| Kersal .....        | 52                 | .. —                  |
| Albert Park .....   | 3                  | .. —                  |
| Mandley Park .....  | 1                  | .. —                  |
| St. Matthias' ..... | —                  | .. —                  |
| Trinity .....       | —                  | .. —                  |
| Crescent .....      | —                  | .. —                  |
| Regent .....        | —                  | .. —                  |
| Ordsall Park .....  | —                  | .. —                  |
| Docks .....         | —                  | .. —                  |
| Charlestown .....   | 52                 | .. —                  |
| St. Thomas' .....   | —                  | .. —                  |
| St. Paul's .....    | —                  | .. —                  |
| Langworthy .....    | —                  | .. —                  |
| Seedley.....        | 3                  | .. —                  |
| Weaste .....        | 35                 | .. —                  |
| Claremont .....     | 41                 | .. —                  |
|                     | —                  | .. —                  |
|                     | 187                | .. —                  |

Of these, 70 have been erected under Housing Schemes of the Corporation. The remaining 117 have been built by private enterprise.

### **Increase of Rent and Mortgage Interest (Restrictions) Act, 1920.**

During the year no application under the above Act was received for a Certificate as to the house being either not reasonably fit for habitation or not in a reasonable state of repair.

### **Certificates as to Housing Conditions.**

Under the terms of the circular letter issued by the City Treasurer, with reference to the issue by the Medical Officer of Health of certificates to the effect that certain families were not living under sanitary conditions, 456 applications have been made and in 334 cases certificates were issued.

A considerable amount of the time of the Sanitary Inspectors was occupied during 1929 in investigating applications for the issue of these certificates, as it is necessary in each case to measure up the existing accommodation in order to find the cubic capacity of the air space available.

**TABLE G. 3.**  
**Cases heard before Magistrates during 1929.**

| Offence.                                                                                                                                                                            | No.<br>of<br>Cases. | Decision of<br>Magistrates.                                                                        | Total Fines<br>(without<br>costs). |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------|----------------------------------------------------------------------------------------------------|------------------------------------|
|                                                                                                                                                                                     |                     |                                                                                                    | £ s. d.                            |
| For failing to comply with Notices under the Streets and Buildings and Sanitary Requirements of the Corporation to properly pave yard surfaces.                                     | 1                   | Fined 5s. and £5 5s. costs.                                                                        | 0 5 0                              |
| For failing to comply with Notices under Salford Improvement Act to repair defective eavesgutters.                                                                                  | 1                   | Fined 10s. and 10s. 6d. costs.                                                                     | 0 10 0                             |
| For failing to comply with Notices under Public Health Act, 1875, to abate nuisances arising from certain sanitary defects.                                                         | 3                   | 1 fined £5 and £2 2s. costs.<br>1 fined 10s.<br>1 not fined.<br>Orders to abate made in all cases. | 5 10 0                             |
| For failing to comply with Notices under Section 22 of the Public Health Acts Amendment Act, 1890, to provide proper, sufficient, and suitable sanitary accommodation at Workshops. | 1                   | Fined £5.                                                                                          | 5 0 0                              |
| For failing to comply with Notices served to abate nuisances arising from the emission of black smoke from mill chimneys.                                                           | 2                   | 1 fined 30s.<br>1 fined 10s.<br>Orders made to abate in all cases.                                 | 2 0 0                              |
| For not marking imported meat according to Regulations.                                                                                                                             | 1                   | Fined £5.                                                                                          | 5 0 0                              |
| For contravention of Schedule to Importation of Animals Act, 1922 (Session 2).                                                                                                      | 1                   | Fined £1 1s. Also £5 5s. costs.                                                                    | 4 4 0                              |
| For contravention of Section 29 (1) of animals landing from Ireland, etc., Order of 1923.                                                                                           | 1                   | Fined £1 1s. Also £5 5s. costs.                                                                    |                                    |
| For contravention of Section 29 (12) of animals landing from Ireland, etc., Order of 1923.                                                                                          | 1                   | Fined £1 1s. Also £5 5s. costs.                                                                    |                                    |
| For contravention of Section 1 (4) of Irish animals marking Order of 1923 (2).                                                                                                      | 1                   | Fined £1 1s. Also £5 5s. costs.                                                                    |                                    |
| For contravention of Article 12 of the Tuberculosis Order, 1925.                                                                                                                    | 1                   | Fined £10 and 15s. costs.                                                                          | 10 0 0                             |
| Carried forward .....                                                                                                                                                               | 14                  |                                                                                                    | 32 9 0                             |



CASES HEARD BEFORE MAGISTRATES, 1929—*Continued.*

| Offence.                                                                                              | No.<br>of<br>Cases. | Decision of<br>Magistrates.                                           | Total Fines<br>(without<br>costs). |
|-------------------------------------------------------------------------------------------------------|---------------------|-----------------------------------------------------------------------|------------------------------------|
| Brought forward.....                                                                                  | 14                  |                                                                       | £ s. d.<br>32 9 0                  |
| For exposing for sale margarine which<br>was unlabelled.                                              | 1                   | Fined £2.                                                             | 2 0 0                              |
| For selling cheese bearing a label which<br>falsely described the article sold.                       | 1                   | Convicted but no<br>fine imposed.                                     |                                    |
| For supplying cheese bearing a label<br>which falsely described the article<br>sold.                  | 1                   | Fined 10s. 6d. and<br>£5 5s. costs.                                   | 0 10 6                             |
| For selling diabetic flour which con-<br>sisted entirely of wheat flour.                              | 1                   | Fined £5.                                                             | 5 0 0                              |
| For supplying same.                                                                                   | 1                   | Dismissed. Retailer<br>admitting receiv-<br>ing article asked<br>for. |                                    |
| For consigning milk to a Salford retailer<br>which on analysis was found to con-<br>tain added water. | 2                   | Fined £10 each.                                                       | 20 0 0                             |
| TOTAL .....                                                                                           | 21                  |                                                                       | £59 19 6                           |

**TABLE G. 4.**  
**REGISTER OF WORK DONE—YEAR ENDING DECEMBER 31ST, 1929.**

|                                  |                                                 |       |
|----------------------------------|-------------------------------------------------|-------|
| No. of Complaints received ..... |                                                 | 4063  |
| Inspections of                   | ( Dwelling-houses .....                         | 10094 |
|                                  | "      "      (under Housing, &c.,<br>Act)..... | 3361  |
|                                  | Schools .....                                   | 533   |
|                                  | Factories.....                                  | 27    |
|                                  | Canal Boats .....                               | 182   |
|                                  | Common Lodging-houses (Day).....                | 421   |
|                                  | "      "      "      (Night) .....              | 54    |
|                                  | Sub-let      "      "      (Day).....           | 1438  |
|                                  | "      "      "      (Night) .....              | 287   |
|                                  | Seamen's Lodging-houses (Day).....              | 105   |
|                                  | "      "      "      (Night) .....              | 17    |
|                                  | Van Dwellings.....                              | 139   |
|                                  | Tips .....                                      | 23    |
|                                  | Bakehouses (Day) .....                          | 710   |
|                                  | Workshops (Day).....                            | 1459  |
|                                  | "      (Night) .....                            | 412   |
|                                  | Domestic Workshops .....                        | 566   |
|                                  | Restaurant Kitchens .....                       | 84    |
|                                  | Outworkers' Premises .....                      | 193   |
|                                  | Ice Cream Shops .....                           | 754   |
|                                  | "      Stalls .....                             | 4     |
|                                  | Fried Fish Dealers.....                         | 261   |
|                                  | Re Smallpox Contacts .....                      | 1109  |
|                                  | Miscellaneous .....                             | 5277  |
|                                  | Laundries .....                                 | 43    |
|                                  | Urinals—Public .....                            | 417   |
|                                  | Stables .....                                   | 1005  |
|                                  | Re Infectious Diseases .....                    | 1612  |
|                                  | Re Verminous Children.....                      | 7     |
|                                  | Theatres, Cinemas, &c. (Day) .....              | 97    |
|                                  | (    "      "      (Night) .....                | 152   |
| Re-inspections .....             |                                                 | 16300 |
| Action taken ..                  | { Statutory Notices issued .....                | 2538  |
|                                  | "      "      complied with.....                | 2120  |
|                                  | "      "      cancelled .....                   | 42    |
|                                  | { Informal Notices issued.....                  | 1757  |
|                                  | "      "      complied with .....               | 1662  |
|                                  | "      "      cancelled .....                   | 73    |
|                                  | { Letters written .....                         | 3906  |
| Summons issued .....             |                                                 | 21    |

REGISTER OF WORK DONE—*Continued.*

|                                                        |      |
|--------------------------------------------------------|------|
| Disinfection—Houses Disinfected .....                  | 2047 |
| House Drains .. {                                      |      |
| { Repaired .....                                       | 284  |
| { Reconstructed .....                                  | 485  |
| { Trapped .....                                        | 207  |
| { Downspouts disconnected from .....                   | —    |
| { Blockages removed .....                              | 1812 |
| Eaves, Gutters, & Downspouts, Passages and Yards ..... |      |
| { Blockages removed .....                              | 99   |
| { Inlets opened .....                                  | 1451 |
| Water Closets .. {                                     |      |
| { New, provided .....                                  | 5    |
| { Ventilated .....                                     | —    |
| Ash Receptacles {                                      |      |
| { New, provided .....                                  | 1422 |
| { Bricked up or demolished .....                       | 116  |
| Limewashed ... {                                       |      |
| { Dwelling-houses .....                                | —    |
| { Lodging-houses .....                                 | 43   |
| " Sub-let .....                                        | 176  |
| " Seamen's .....                                       | 7    |
| { Bakehouses .....                                     | 277  |
| { Workshops .....                                      | 63   |
| { Workshops (Domestic) .....                           | 7    |
| { Outworkers' premises .....                           | 5    |
| { Laundries .....                                      | 7    |
| Newly Licensed Common Lodging-houses .....             | 15   |
| " " Seamen's " .....                                   | 9    |
| Newly Registered .. {                                  |      |
| { Lodging-houses Sub-let .....                         | 14   |
| { Workshops .....                                      | 13   |
| " (Domestic) .....                                     | 7    |
| { Bakehouses .....                                     | 13   |
| { Second-hand Goods Stores .....                       | 14   |
| { Ice Cream Shops .....                                | 2    |
| Accumulations Removed .... {                           |      |
| { Manure and Refuse .....                              | 50   |
| { Stagnant Water .....                                 | 5    |
| Smoke Nuisance {                                       |      |
| { Observations taken .....                             | 3305 |
| { Notices served .....                                 | 11   |
| { Cautionary Notices served .....                      | 25   |
| Passages and Yards .....                               |      |
| { Flagged .....                                        | 2    |
| { Repaired .....                                       | 354  |
| { Drained .....                                        | 1    |
| Bundles of Infected Bedding and Clothing {             |      |
| { Stoved .....                                         | 2853 |
| { Destroyed .....                                      | 73   |
| Animals removed from improper situations .....         | —    |
| Overcrowding of dwellings abated .....                 | 8    |
| Houses repaired by owners, after notice .....          | 3564 |
| Canal Boats painted .....                              | 5    |
| " defective .....                                      | —    |
| " repaired .....                                       | 4    |



## Housing Conditions.

YEAR ENDED 31ST DECEMBER, 1929.

### GENERAL STATISTICS.

|                                                       |          |
|-------------------------------------------------------|----------|
| Area (acres) .....                                    | 5202     |
| Population (1929) .....                               | 235600   |
| Number of Inhabited Houses (1929-1930, April).....    | 50800    |
| Number of families or separate occupiers (1929) ..... | —        |
| Rateable Value (1929-1930, April).....                | £1345759 |
| Sum represented by a penny rate (Estimate).....       | £5307    |

### HOUSING.

Number of new houses erected during the year :—

|                                                 |     |
|-------------------------------------------------|-----|
| (a) Total.....                                  | 187 |
| (b) As part of a municipal housing scheme ..... | 70  |

#### 1. Unfit dwelling-houses

Inspection—

|                                                                                                                                                                         |       |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------|
| (1) Total number of dwelling-houses inspected for housing defects (under Public Health Acts) .....                                                                      | 10094 |
| (2) Number of dwelling-houses which were inspected and recorded under the Housing Consolidated Regulations, 1925.....                                                   | 3361  |
| (3) Number of dwelling-houses found to be in a state so dangerous or injurious to health as to be unfit for human habitation. ....                                      | Nil.  |
| (4) Number of dwelling-houses (exclusive of those referred to under the preceding sub-heading) found not to be in all respects reasonably fit for human habitation..... | 5317  |

#### 2. Remedy of defects without service of formal Notices.

|                                                                                                                                  |      |
|----------------------------------------------------------------------------------------------------------------------------------|------|
| Number of defective dwelling-houses rendered fit in consequence of informal action by the Local Authority or their officers..... | 1675 |
|----------------------------------------------------------------------------------------------------------------------------------|------|

#### 3. Action under Statutory Powers.

|                                                                                                                                                      |      |
|------------------------------------------------------------------------------------------------------------------------------------------------------|------|
| A: Proceedings under Section 3 of the Housing Act, 1925 .....                                                                                        | Nil  |
| (1) Number of dwelling-houses in respect of which Notices were served requiring repairs .....                                                        | Nil. |
| (2) Number of dwelling-houses which were rendered fit :—                                                                                             |      |
| (a) By owners .....                                                                                                                                  | Nil. |
| (b) By Local Authority in default of owners .....                                                                                                    | Nil. |
| (3) Number of dwelling-houses in respect of which Closing Orders became operative in pursuance of declarations by owners of intention to close ..... | Nil. |

HOUSING CONDITIONS—*Continued.*

(B) Proceedings under Public Health Acts.

|                                                                                                              |       |
|--------------------------------------------------------------------------------------------------------------|-------|
| (1) Number of dwelling-houses in respect of which Notices were served requiring defects to be remedied ..... | 3125  |
| (2) Number of dwelling-houses in which defects were remedied :—                                              |       |
| (a) By owners.....                                                                                           | 1889* |
| (b) By Local Authority in default of owners .....                                                            | Nil.  |

(C) Proceedings under Sections 11, 14 and 15 of the Housing Act, 1925.

|                                                                                                                                  |      |
|----------------------------------------------------------------------------------------------------------------------------------|------|
| (1) Number of representations made with a view to the making of Closing Orders.....                                              | Nil. |
| (2) Number of dwelling-houses in respect of which Closing Orders were made .....                                                 | Nil  |
| (3) Number of dwelling-houses in respect of which Closing Orders were determined, the dwelling-houses having been rendered fit.. | Nil. |
| (4) Number of dwelling-houses in respect of which Demolition Orders were made .....                                              | Nil. |
| (5) Number of dwelling-houses demolished in pursuance of Demolition Orders .....                                                 | Nil. |

\* Including houses repaired in 1929 in respect of which Notices were issued in 1928.

Housing, Town Planning, &c., Act.

HOUSE-TO-HOUSE INSPECTIONS UNDER THE HOUSING CONSOLIDATED REGULATIONS, 1925.

One ward, namely: St. Matthias', was examined during 1929 in accordance with the above-named Regulations, the total number of houses examined being 3,361.

It is interesting to note that of these only 156 had less than four rooms and all but 129 were provided with a separate water closet.

The only important defect found was that of insufficiency of light and ventilation in 525 houses, but, as some of the property examined includes a portion of the older parts of the City, this is to be expected.

Full details will be found in the following table :—

## HOUSING, TOWN PLANNING, &amp;c., ACT.

## House-to-House Inspections, 1929.

|                                                                                                        | ST. MATTHIAS'<br>WARD. |
|--------------------------------------------------------------------------------------------------------|------------------------|
| Number of houses inspected .....                                                                       | 3361                   |
| Number of dwellings with 1 room .....                                                                  | —                      |
| "          "          2 rooms .....                                                                    | 110                    |
| "          "          3 rooms .....                                                                    | 46                     |
| "          "          4 rooms .....                                                                    | 1415                   |
| "          "          5 rooms .....                                                                    | 554                    |
| "          "          6 rooms .....                                                                    | 1020                   |
| "          "          over 6 rooms .....                                                               | 206                    |
| Closet Accommodation :—                                                                                |                        |
| Water Closet .....                                                                                     | 3361                   |
| Pail Closet .....                                                                                      | —                      |
| Privy Midden .....                                                                                     | —                      |
| Number of houses with closet accommodation in common<br>with other dwelling .....                      | 129                    |
| Ash Accommodation :—                                                                                   |                        |
| Metallic Receptacle .....                                                                              | 3361                   |
| Tub .....                                                                                              | —                      |
| Ashpit .....                                                                                           | —                      |
| Unsatisfactory .....                                                                                   | —                      |
| In common .....                                                                                        | —                      |
| No accommodation .....                                                                                 | —                      |
| Defects :—                                                                                             |                        |
| Insufficient light and ventilation .....                                                               | 525                    |
| Defective drainage .....                                                                               | —                      |
| No drainage .....                                                                                      | —                      |
| Serious dilapidation .....                                                                             | —                      |
| Back-to-back houses .....                                                                              | 47                     |
| Houses unfit for habitation .....                                                                      | —                      |
| Number of representations made to Local Authority with<br>a view to making Closing Orders .....        | —                      |
| Number of Closing Orders made .....                                                                    | —                      |
| Number of dwelling-houses put into fit state for human<br>habitation after making Closing Orders ..... | —                      |
| Defects remedied without Closing Orders .....                                                          | —                      |



I am indebted to the Superintendent of the Lighting and Cleansing Department, Salford, for the following information, namely :—

#### DESTRUCTION OF RATS AND MICE.

A Professional Ratcatcher is employed by the Corporation, on receipt of complaints from occupiers, in laying poisoned baits, setting traps and advising as to the best means of rat-proofing of premises.

In the course of the year 887 visits were made to dwelling-houses, schools, shops, offices, works, stores, &c., and 6,416 poisoned baits were laid, whilst 777 live rats were caught, either in cages and traps or by dogs and cats.

Where sanitary defects in premises are revealed in the course of the work of rat destruction, the co-operation of the Medical Officer of Health and the City Engineer is sought to ensure that the defects are remedied.

The Cleansing Depots of the Corporation are at all times kept under strict observation, with the result that the number of rats has now considerably diminished.

The usual "Rat Week" was arranged for Salford, commencing 5th November and continuing to the 10th November, and the necessary publicity was given to this object by posting large placards on hoardings and various public buildings inviting the co-operation of owners and occupiers of houses and other property, and offering assistance, free of charge, on application.

At the same time, articles on the subject were given prominence in the local Press, and attention called to the immense loss suffered by the country as the result of the depredations of rats and mice, and also the serious danger of the spread of disease by their agency.

The activities of the Department have become very generally known throughout the City, and its services more systematically utilised, in the destruction of rats and mice.

**City of Salford (Springfield Terrace Area Improvement Scheme) Order, dated 20th January, 1928.**

The property dealt with by the above-mentioned Order comprised the following houses :—

- 1/9 and 2/38, East Robert Street.
- 2 and 1/5, East Elizabeth Street.
- 2, 2A, and 6, East York Street.
- 6, East Phillip Street.
- 1/7, Coade Street.
- 1/45 and 2/38, Springfield Terrace.
- 94 and 96, Bridgewater Street.

The gross area of the insanitary area was .94 acres, while the gross density of the houses on the area was 80 per acre respectively.

As a result of a detailed inspection and a census of the population of the area, a representation was made to the Health Committee on the 20th May, 1926, that the narrowness, closeness, and bad arrangement, or the bad



condition of the streets and houses, or groups of houses, within the area, or the want of light, air, ventilation or proper conveniences, or any other sanitary defects, or one or more such causes, are dangerous or injurious to the health of the inhabitants either of the buildings in the area or of the neighbouring buildings. This was approved by the Committee and in turn sanctioned by the Council on the 2nd June, 1926.

Application for an Order confirming the scheme was made by the Council, and a public enquiry was held on the 23rd November, 1927, with the result that an Order was made by the Ministry of Health on the 20th January, 1928.

This Order sanctioned the demolition of all the houses in the insanitary area and the provision of 76 new houses in Gerald Road, Pendleton.

A scheme for the erection of 76 houses and the necessary sewers and street works on the Gerald Road site was approved by the Council on the 9th January, 1929, at an estimated cost of £30,100. Sanction was obtained from the Ministry of Health on the 29th January, 1929. Work was commenced on the 18th March, 1929, and completed on the 13th March, 1930.

The area of land utilised = 3.03 acres, and the density = 19.91 houses per acre.

The property consists of 5 blocks of 8 houses and 6 blocks of 6 houses. The end houses provide living room, scullery, larder, bathroom, w.c. and coal store on the



ground floor, and three bedrooms above. The superficial area of the floors is 731 sq. ft. The middle houses provide living room, scullery and larder on the ground floor, and two bedrooms and w.c. and bathroom above. The superficial area of the floor is 653 sq. ft. The houses are lit throughout by electricity and electric wash boilers are also provided. The rent of the end houses is 11s. 6d. per week, and the rent of the middle houses is 10s. 6d. per week, inclusive of rates.

The demolition of the houses on the insanitary area was commenced on the 8th October, 1929, and completed on the 12th April, 1930. The whole of the tenants were transferred to the new houses as they became available for habitation. During this period 157 adults, 51 persons over the age of 14 and under the age of 21 years, and 116 children under 14 years were removed from the insanitary area to the new property, making a total of 324 persons.

## SECTION IIA.

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## Atmospheric Pollution.

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Observations are still being carried out by the Health Department on similar lines to previous years, and include :—

- (1) The measurement of atmospheric impurity at four different stations by means of the “deposit gauge.”
- (2) The measurement of the strength of sunlight at four different stations by means of the Potassium Iodide test.
- (3) A comparison of the efficiency of solid fuels when burned in the all-firebrick open domestic grate.
- (4) A consideration of the alternatives to the open domestic grate.

### 1. The Amount and Nature of Atmospheric Impurity.

Commencing with the year 1923, a separate section of the Annual Report has been devoted to the subject of Atmospheric Pollution. In the above year (1923) a special investigation was carried out with the object of ascertaining the relative parts played by (*a*) domestic smoke, and (*b*) factory smoke, in the production of atmospheric pollution in this area. It was then found that the total amounts of coal consumed in (*a*) domestic fires and (*b*) factory fires, in Salford, were approximately as follows :—

|                                 |        |      |     |      |                     |
|---------------------------------|--------|------|-----|------|---------------------|
| ( <i>a</i> ) Domestic Coal..... | 7,077  | tons | per | week | (Summer).           |
|                                 | 11,305 | „    | „   | „    | (Winter).           |
| <i>b</i> ) Factory Coal.....    | 5,877  | „    | „   | „    | All the year round. |

This inquiry proved that the total coal consumed in domestic grates considerably exceeded the coal consumed in factory fires; in fact, the Winter consumption of domestic coal was twice that of factory coal. Inasmuch as the coal in domestic grates is much less completely burned up than coal in factory fires, the relatively low temperature of the former causing large volumes of "distillation products" (e.g., tar and fume) to be poured into the atmosphere, it seemed a justifiable conclusion that domestic smoke, as far as Salford was concerned, played a much more important part than industrial smoke in bringing about atmospheric pollution. One may say that this view is now generally accepted. Analysis of atmospheric deposit (as collected in the deposit gauge) has always shown a relatively high *tar* value; in fact, the figures published in the Report of the Department of Scientific and Industrial Research show that for a certain year (April, 1927, to March, 1928) the deposit of tar in Salford was higher than that in any other Observation Station in the country.

Examination of Salford's atmospheric deposit has always revealed large amounts of those products which result from the combustion of raw coal in domestic grates, namely (*a*) tar, (*b*) sooty matter. Salford deposit also shows a large amount of (*c*) sulphur ( $\text{SO}_3$ ), which results from the combustion of coal in both factory and domestic fires. It is interesting to compare the relative amount of these "coal pollution" products in the atmosphere of Salford and the relatively clean atmosphere of Southport. I am indebted to Joseph Baxendell, Esq., F.R.Met.Soc.,



Borough Meteorologist, Southport, for kindly furnishing me with the most recent Southport figures :—

ATMOSPHERIC DEPOSIT DURING THE SIX YEARS 1924–1929.  
(Figures represent metric tons per 100 square kilometres.)

I.—TAR.

| Station.                      | 1924. | 1925. | 1926. | 1927. | 1928. | 1929. |
|-------------------------------|-------|-------|-------|-------|-------|-------|
| SALFORD : Regent Square ...   | 20    | 23    | 83    | 84    | 102   | 57    |
| Do. Peel Park.....            | 30    | 27    | 80    | 64    | 60    | 49    |
| MARPLE : Sanatorium .....     | 6     | 6     | 27    | 38    | 28    | 10    |
| SOUTHPORT : Hesketh Park .... | 4     | 3     | 4     | 4     | 5     | 4     |

II.—OTHER INSOLUBLE CARBONACEOUS MATTER (Sooty Matter).

| Station.                     | 1924. | 1925. | 1926. | 1927. | 1928. | 1929. |
|------------------------------|-------|-------|-------|-------|-------|-------|
| SALFORD : Regent Square ...  | 426   | 437   | 349   | 648   | 366   | 345   |
| Do. Peel Park .....          | 340   | 363   | 291   | 473   | 376   | 196   |
| MARPLE : Sanatorium .....    | 83    | 61    | 120   | 360   | 282   | 119   |
| SOUTHPORT : Hesketh Park ... | 82    | 87    | 83    | 74    | 76    | 57    |

III.—SULPHUR (SO<sup>3</sup>).

| Station.                     | 1924. | 1925. | 1926. | 1927. | 1928. | 1929. |
|------------------------------|-------|-------|-------|-------|-------|-------|
| SALFORD : Regent Square ...  | 199   | 201   | 159   | 175   | 300   | 149   |
| Do. Peel Park.....           | 183   | 218   | 212   | 252   | 307   | 125   |
| MARPLE : Sanatorium .....    | 123   | 95    | 88    | 141   | 128   | 77    |
| SOUTHPORT : Hesketh Park ... | 69    | 54    | 59    | 49    | 76    | 48    |

As seen in the above Tables, the amount of coal smoke pollution in Southport's atmosphere is very low indeed; in fact, the tar figure is consistently low—generally about

the lowest of any Observation Station in the country. Comparing Salford's Peel Park with Southport's Hesketh Park, we get the following astonishing tar ratio—Salford 12, Southport 1. Marple's atmosphere, whilst much purer than Salford's, is more contaminated than that of Southport.

Comparing Salford's pollution figures during the last six years, it is satisfactory to note that (*a*) the tar figure for 1929 is lower than that for the preceding three years; (*b*) the soot figure is the lowest for the last six years; (*c*) the sulphur figure is the lowest for the last six years.

## **2. The Measurement of the Strength of Sunlight\* at four different Stations by means of the Potassium Iodide Test.**

Measurement of the strength of sunlight has been continued at the same four Corporation Stations as in the previous three years, namely—(1) Regent Road, Salford; (2) Nab Top Sanatorium, Marple, Cheshire; (3) Ladywell Sanatorium, Salford; and (4) Drinkwater Park Hospital, Prestwich. Regent Road represents the densely-populated area, and Ladywell the westerly outskirts of the City; Drinkwater Park is about four miles north-west of the densely-populated Regent Road area, and Nab Top, Marple, about ten miles to the south-east.

At each of these four stations test bottles containing an acidulated solution of Potassium Iodide have been daily exposed in open situations. This solution gradually turns brown on exposure, owing to the liberation of free

---

\*The term "Sunlight" includes all the light received from the sky, even on a cloudy day, and should not be confused with "sunshine"—the direct rays of the sun.

iodine by the active light rays, and the amount of iodine thus liberated may be taken as a measure of the amount of sunlight received. Fresh bottles of the solution are daily exposed in each of the four stations, and the amount of iodine liberated in each is easily estimated.

The accompanying Table shows the total amount of sunlight received in each of the four years 1926-1929 at the above-mentioned four stations :—

YEARLY AMOUNT OF SUNLIGHT.

(The figures given below represent milligrammes of iodine liberated by sunlight.)

| Year.           | Salford.<br>Regent Road. | Marple.<br>Sanatorium. | Salford.<br>Ladywell. | Prestwich.<br>Drinkwater Park. |
|-----------------|--------------------------|------------------------|-----------------------|--------------------------------|
| 1926.....       | 1613·7                   | 1746·6                 | 1654·9                | 1747·2                         |
| 1927.....       | 1467·2                   | 1678·5                 | 1745·1                | 1846·1                         |
| 1928.....       | 1204·8                   | 1507·2                 | 1573·5                | 1527·2                         |
| 1929 .....      | 1559·0                   | 1932·9                 | 1772·2                | 1781·5                         |
| 4 Years' Total. | 5844·7                   | 6865·2                 | 6745·7                | 6902·0                         |

It will be noticed from the above tabulation that the amount of sunlight received at the Regent Road Station is in each year less than that received at any of the other three stations. This is as one would expect; at the same time, the difference is not a huge one.

### 3. Comparison of the Efficiency of Solid Fuels used in the All-Firebrick Open Domestic Grate.

Still further experiments with solid fuels carried out during the Winter 1929-30 again show that the vertical



retort coke as obtained from the Salford Gas Works is relatively the most efficient, as well as the most economic, fuel for the domestic fire. The experiments were carried out within the premises of the Health Department at Regent Road, on the lines indicated in Section IIA of my Annual Report for 1925, and whilst not being scientifically precise, it is held that these experiments are sufficiently practical to afford some useful indication of the relative heating value of certain fuels when burned in the open domestic all-firebrick grate.

The following Tables show the results of three different series of comparative experiments:—

**TABLE 1.**

“VERTICAL COKE” *versus* “BOLSOVER COBBLES.”

(Average of 15 observations carried out during February and March, 1930.)

| VERTICAL COKE.                            |                                        | BOLSOVER COBBLES.                         |                                        |
|-------------------------------------------|----------------------------------------|-------------------------------------------|----------------------------------------|
| Average Temperature of Room (Fahrenheit). | Average daily weight of fuel consumed. | Average Temperature of Room (Fahrenheit). | Average daily weight of fuel consumed. |
| 64·4 degrees.                             | 12·7 lbs.                              | 64·6 degrees.                             | 20·3 lbs.                              |

**TABLE 2.**

“VERTICAL COKE *versus* “ANTHRACITE COBBLES.”

(Average of 22 observations carried out during March and April, 1930.)

| VERTICAL COKE.                            |                                        | ANTHRACITE COBBLES.                       |                                        |
|-------------------------------------------|----------------------------------------|-------------------------------------------|----------------------------------------|
| Average Temperature of Room (Fahrenheit). | Average daily weight of fuel consumed. | Average Temperature of Room (Fahrenheit). | Average daily weight of fuel consumed. |
| 64·3 degrees.                             | 12·6 lbs.                              | 63·9 degrees.                             | 18·6 lbs.                              |

**TABLE 3.**BEST HOUSE COAL *versus* ANTHRACITE.

(Average of 27 experiments carried out in April and May, 1930.)

| BEST HOUSE COAL.                          |                                        | ANTHRACITE.                               |                                        |
|-------------------------------------------|----------------------------------------|-------------------------------------------|----------------------------------------|
| Average Temperature of Room (Fahrenheit). | Average daily weight of fuel consumed. | Average Temperature of Room (Fahrenheit). | Average daily weight of fuel consumed. |
| 66.8 degrees.                             | 18.0 lbs.                              | 66.4 degrees.                             | 19.2 lbs.                              |

TABLE I shows that for approximately the same room-warming effect, 2 lbs. of vertical retort coke equalled 3 lbs. of Bolsover Cobbles, a result similar to that obtained when comparing vertical coke and house coal two years ago (see Annual Report for 1927).

TABLE II shows vertical coke similarly superior to anthracite when burned in the all-firebrick open grate, 2 lbs. of vertical coke giving a rather higher room temperature than 3 lbs. of anthracite.

TABLE III shows Best House Coal very slightly superior to anthracite when burned in the all-firebrick open grate.

It is somewhat surprising to find that weight for weight anthracite gave a slightly inferior room-warming effect to good house coal when burned in the all-fire brick open grate. An explanation of this result is that the anthracite fires were rather dull and took longer to reach their maximum radiant efficiency. This substance (anthracite) would, no doubt, give a more favourable comparison when burned in a grate with a bottom draught.



It is abundantly clear that in dry gas coke, as obtained in vertical retorts by a process which obviates water-quenching, we have an ideal smokeless fuel for the open domestic grate (which should be preferably of the all-firebrick type without bottom draught).

Vertical coke fires give out a tremendous amount of radiant heat, are pleasant and bright to sit by, give rise to no objectionable fumes in the room, require little attention, and are exceedingly economical. Above all, they are absolutely smokeless. Unfortunately, the supply of this coke is very limited. It is highly desirable that gas undertakings should consider the production of this substance on a much larger scale. After all, gas coke, the by-product of former years, is likely to be the main product of future years. The old water-quenched coke is very difficult to ignite, and many a recruit to practical smoke abatement has been discouraged by having this water-logged commodity submitted to him as the alternative to raw coal and the smoky coal fire.

Low temperature cokes, such as "Coalite," give excellent smokeless fires; "Coalite" is even more easily ignited than is vertical dry coke, but the price is considerably higher.

Throughout the Health Department, the rooms have been heated for years by open coke fires (there are some 56 of them). They have proved quite easy to light and to maintain, and the fuel bill is relatively low.

Anthracite might be used in the domestic grate in districts where plentiful, but unlike coke and "coalite," it appears to do better in a grate with some bottom draught.



#### 4. A Consideration of the Alternatives to the Open Domestic Grate.

In buildings where the open fire is not practicable, one has to consider alternative means of heating. This applies not only to large buildings, but also to rooms which are only occupied for short periods.

For large buildings the method of heating hitherto almost universally employed has been of the "central" type, either warm air being circulated by means of electric fans, or the air of the rooms has been warmed by contact with either steam or hot water pipes and (so-called) radiators, and circulated by convection. The great objection to this mode of heating is that the air of a room is warmer than the surfaces, which makes for congestion of the lining of human respiratory passages, causing a sense of stuffiness, headache, lassitude and liability to "colds." The ideal, of course, is cool air and relatively warm surfaces, such as obtains with the open fire. A room heated solely by an open fire is a much more suitable environment for the mental worker than a room heated by hot water (so-called) radiators (these warm the air by convection and supply comparatively little *radiant* heat).

##### Panel Heating.

A recent alternative to the ordinary hot water "radiators" is Panel Heating. In this system the heating panels may be in the ceiling or walls, or both; embedded in the panels are hot water pipes or electric heating elements. This method of heating is still in its infancy, and in comparatively few buildings has it yet

been installed. Your Medical Officer and Deputy Chairman have recently visited certain institutions in London and elsewhere where this system has been adopted, but as a method of heating, it cannot yet be accepted as the ideal, although in some respects it is an improvement upon the usual hot water radiator system. It appears that in one institution visited, windows cannot be opened too freely because of heat loss. Probably such drawbacks will disappear as the system is improved and developed.

### **Electric Radiators.**

In one section of the Health Offices, occupied only one or two hours per day, the wall type of electric fire with parabolic reflector has been tried with success. This fire fixed high up near the ceiling radiates heat downwards upon the occupants, who receive sufficient warmth from this source without the air temperature being much raised. This is a very pleasant and healthy form of heating, and when only required for short periods, it is very economical.

## SECTION III.

## Infectious Diseases.

PREVALENCE OF AND CONTROL OVER  
INFECTIOUS DISEASE.

The number of notifications of notifiable infectious diseases shows an increase for 1929, the total number of cases notified being 3,027, this being an increase of 318 as compared with 1928.

There were comparatively large increases in the following diseases :—

| Disease.                         | Increase over 1928. |
|----------------------------------|---------------------|
| Diphtheria .....                 | 253                 |
| Acute Primary Pneumonia .....    | 200                 |
| Acute Influenzal Pneumonia ..... | 88                  |

The principal decreases were as follows :—

| Disease.            | Decrease from 1928. |
|---------------------|---------------------|
| Scarlet Fever ..... | 187                 |
| Enteric Fever ..... | 11                  |

As regards Scarlet Fever, there is no doubt that the present-day type is much milder than that of former years.

Details of the number of cases of infectious disease notified are given in Tables 1 and 2 (pages 75, 76 and 77).



The usual methods, described in previous reports, for the prevention of the spread of these diseases were continued. School teachers are encouraged to report, in addition, cases of non-notifiable disease, which are at once investigated by the School Medical Officers.

Supplies of Diphtheria Antitoxin are kept by the department and are available, free of charge, immediately to any Medical Practitioner who applies for the same.

There were 168 cases of Influenzal-Pneumonia notified; 202 deaths occurred from Influenza during the year.

The Salford Corporation have an Infectious Diseases Hospital (Ladywell Sanatorium) to which cases which cannot be isolated at home are removed for treatment (including advanced cases of Tuberculosis). The Sanitary Staff of the Department carry out disinfection of the premises where cases of infectious disease have occurred.

The Corporation have a Special Disinfecting Station at Mode Wheel, where a considerable number of verminous persons, principally children, are dealt with every year.

TABLE I. 1.

CASES OF INFECTIOUS DISEASE NOTIFIED DURING THE YEAR 1929.

| NOTIFIABLE DISEASES.                       | Cases notified in Whole District. |                |         |          |           |           |           | Total Cases notified in each Ward. |              |            |           |        |         |             |               |               |         |               |             | Cases removed to Hospital. |             |          |          |        |                 |
|--------------------------------------------|-----------------------------------|----------------|---------|----------|-----------|-----------|-----------|------------------------------------|--------------|------------|-----------|--------|---------|-------------|---------------|---------------|---------|---------------|-------------|----------------------------|-------------|----------|----------|--------|-----------------|
|                                            | At All Ages.                      | At Ages—Years. |         |          |           |           |           | Albert Park.                       | Charlestown. | Claremont. | Crescent. | Docks. | Kersal. | Langworthy. | Mandley Park. | Ordsall Park. | Regent. | St. Matthias. | St. Paul's. |                            | St. Thomas. | Seedley. | Trinity. | Waste. |                 |
|                                            |                                   | Under 1.       | 1 to 5. | 5 to 15. | 15 to 25. | 25 to 45. | 45 to 65. |                                    |              |            |           |        |         |             |               |               |         |               |             |                            |             |          |          |        | 65 and upwards. |
| Small pox .....                            | ..                                | ..             | ..      | ..       | ..        | ..        | ..        | ..                                 | ..           | ..         | ..        | ..     | ..      | ..          | ..            | ..            | ..      | ..            | ..          | ..                         | ..          | ..       | ..       | ..     | ..              |
| Diphtheria (including Membranous croup) .. | 678                               | 7              | 215     | 377      | 48        | 27        | 4         | ..                                 | 34           | 5          | 80        | 48     | 26      | 15          | 37            | 63            | 133     | 48            | 24          | 29                         | ..          | 58       | 32       | ..     | 657             |
| Erysipelas.....                            | 150                               | ..             | 3       | 8        | 21        | 47        | 55        | 16                                 | 12           | 6          | 15        | 8      | 8       | 6           | 4             | 9             | 18      | 6             | 9           | 10                         | ..          | 17       | 12       | ..     | 82              |
| Scarlet fever .....                        | 635                               | 4              | 182     | 370      | 61        | 17        | 1         | ..                                 | 37           | 25         | 57        | 32     | 32      | 47          | 47            | 44            | 51      | 37            | 35          | 49                         | ..          | 33       | 43       | ..     | 569             |
| Typhus fever .....                         | ..                                | ..             | ..      | ..       | ..        | ..        | ..        | ..                                 | ..           | ..         | ..        | ..     | ..      | ..          | ..            | ..            | ..      | ..            | ..          | ..                         | ..          | ..       | ..       | ..     | ..              |
| Enteric fever .....                        | 9                                 | ..             | ..      | 1        | 3         | 5         | ..        | ..                                 | ..           | ..         | ..        | ..     | ..      | 1           | ..            | 3             | ..      | 1             | 1           | 1                          | ..          | ..       | ..       | ..     | 7               |
| Continued fever .....                      | ..                                | ..             | ..      | ..       | ..        | ..        | ..        | ..                                 | ..           | ..         | ..        | ..     | ..      | ..          | ..            | ..            | ..      | ..            | ..          | ..                         | ..          | ..       | ..       | ..     | ..              |
| Relapsing fever .....                      | ..                                | ..             | ..      | ..       | ..        | ..        | ..        | ..                                 | ..           | ..         | ..        | ..     | ..      | ..          | ..            | ..            | ..      | ..            | ..          | ..                         | ..          | ..       | ..       | ..     | ..              |
| Puerperal fever .....                      | 16                                | ..             | ..      | ..       | 3         | 13        | ..        | ..                                 | 1            | ..         | ..        | 1      | 1       | ..          | 1             | 2             | 1       | 2             | 2           | ..                         | ..          | 4        | ..       | ..     | 14              |
| Puerperal Pyrexia ..                       | 18                                | ..             | ..      | ..       | 3         | 15        | ..        | ..                                 | 2            | ..         | 1         | 1      | 1       | 1           | 3             | 1             | 1       | ..            | ..          | 3                          | ..          | 2        | ..       | ..     | 7               |
| Cholera .....                              | ..                                | ..             | ..      | ..       | ..        | ..        | ..        | ..                                 | ..           | ..         | ..        | ..     | ..      | ..          | ..            | ..            | ..      | ..            | ..          | ..                         | ..          | ..       | ..       | ..     | ..              |
| Cerebro-Spinal Meningitis ..               | 5                                 | 2              | 3       | ..       | ..        | ..        | ..        | ..                                 | 1            | ..         | ..        | ..     | ..      | 1           | 1             | ..            | 1       | ..            | ..          | 2                          | ..          | 1        | ..       | ..     | 2               |
| Acute-Poliomyelitis..                      | 2                                 | ..             | 2       | ..       | ..        | ..        | ..        | ..                                 | ..           | ..         | ..        | ..     | ..      | ..          | ..            | ..            | 1       | ..            | ..          | ..                         | ..          | ..       | ..       | ..     | 1               |
| Anthrax .....                              | ..                                | ..             | ..      | ..       | ..        | ..        | ..        | ..                                 | ..           | ..         | ..        | ..     | ..      | ..          | ..            | ..            | ..      | ..            | ..          | ..                         | ..          | ..       | ..       | ..     | ..              |
| Glanders .....                             | ..                                | ..             | ..      | ..       | ..        | ..        | ..        | ..                                 | ..           | ..         | ..        | ..     | ..      | ..          | ..            | ..            | ..      | ..            | ..          | ..                         | ..          | ..       | ..       | ..     | ..              |
| Ophthalmia Neonatorum .....                | 35                                | 35             | ..      | ..       | ..        | ..        | ..        | ..                                 | 7            | ..         | ..        | 5      | 2       | 2           | 1             | ..            | ..      | 4             | 3           | 1                          | ..          | 3        | ..       | ..     | ..              |
| Pulmonary tuberculosis                     | 522                               | 1              | 7       | 39       | 133       | 204       | 127       | 11                                 | 31           | 12         | 51        | 32     | 12      | 20          | 37            | 32            | 67      | 36            | 32          | 42                         | ..          | 46       | 25       | ..     | 554             |
| Other forms of tuberculosis ..             | 112                               | 3              | 21      | 44       | 26        | 10        | 6         | 2                                  | 7            | 3          | 21        | 4      | 6       | 4           | 5             | 8             | 6       | 8             | 8           | 6                          | ..          | 10       | 5        | ..     | 30              |
| Malaria.....                               | ..                                | ..             | ..      | ..       | ..        | ..        | ..        | ..                                 | ..           | ..         | ..        | ..     | ..      | ..          | ..            | ..            | ..      | ..            | ..          | ..                         | ..          | ..       | ..       | ..     | ..              |
| Dysentery.....                             | ..                                | ..             | ..      | ..       | ..        | ..        | ..        | ..                                 | ..           | ..         | ..        | ..     | ..      | ..          | ..            | ..            | ..      | ..            | ..          | ..                         | ..          | ..       | ..       | ..     | ..              |
| Acute Primary Pneumonia .....              | 658                               | ..             | ..      | ..       | ..        | ..        | ..        | ..                                 | 46           | 18         | 88        | 15     | 16      | 51          | 21            | 27            | 46      | 78            | 53          | 52                         | ..          | 64       | 24       | ..     | 3               |
| Influenzal Pneumonia                       | 168                               | ..             | ..      | ..       | ..        | ..        | ..        | ..                                 | 15           | 4          | 14        | 6      | 2       | 15          | 1             | 12            | 11      | 13            | 26          | 9                          | ..          | 9        | 10       | ..     | 1               |
| Encephalitis Leth. ...                     | 9                                 | ..             | 1       | 2        | 1         | 1         | 3         | 1                                  | ..           | 2          | 3         | ..     | ..      | ..          | ..            | ..            | ..      | ..            | ..          | ..                         | ..          | ..       | 2        | ..     | ..              |
| Acute Polio Encephalitis .....             | ..                                | ..             | ..      | ..       | ..        | ..        | ..        | ..                                 | ..           | ..         | ..        | ..     | ..      | ..          | ..            | ..            | ..      | ..            | ..          | ..                         | ..          | ..       | ..       | ..     | ..              |
| Pemphigus Neonatorum .....                 | 10                                | 10             | ..      | ..       | ..        | ..        | ..        | ..                                 | 2            | ..         | 1         | ..     | 2       | ..          | 1             | ..            | 1       | ..            | 2           | ..                         | ..          | 1        | ..       | ..     | ..              |
| Total .....                                | 3027                              | 62             | 434     | 841      | 299       | 339       | 196       | 30                                 | 173          | 75         | 332       | 152    | 108     | 163         | 167           | 201           | 336     | 233           | 195         | 204                        | 97          | 248      | 153      | 1928   |                 |

**TABLE 1. 2.**  
SHOWING THE NUMBER OF CASES OF INFECTIOUS DISEASE NOTIFIED TO THE HEALTH  
DEPARTMENT DURING THE YEARS 1883 TO 1929.

[illegible]



TABLE I. 2.—Continued.

| Year.                                    | †Chicken-pox. | Smallpox. | Scarlet Fever. | Diphtheria. | Fever.   |         |             | Puerperal Pyrexia. | Pemphigus Neonatorum. | Erysipelas. | Anthrax. | Cerebro-Spinal Meningitis. | Acute Poliomyelitis. | Ophthalmia Neonatorum. | * Measles. | Tuberculosis. |                 | Typhoid Fever. | Malaria. | Acute Polio Encephalitis. | Dysentery. | Acute Primary Pneumonia. | Influenzal-Pneumonia. | Encephalitis Lethargica. | Total. |
|------------------------------------------|---------------|-----------|----------------|-------------|----------|---------|-------------|--------------------|-----------------------|-------------|----------|----------------------------|----------------------|------------------------|------------|---------------|-----------------|----------------|----------|---------------------------|------------|--------------------------|-----------------------|--------------------------|--------|
|                                          |               |           |                |             | Enteric. | Typhus. | Con-tinued. | Puerperal.         |                       |             |          |                            |                      |                        |            | Pul-monary.   | Non-Pul-monary. |                |          |                           |            |                          |                       |                          |        |
| 1903.....                                | ..            | 175       | 737            | 335         | 178      | ..      | 1           | 13                 | ..                    | 161         | ..       | ..                         | ..                   | ..                     | ..         | ..            | ..              | ..             | ..       | ..                        | ..         | ..                       | ..                    | ..                       | 1600   |
| 1904.....                                | ..            | 57        | 1043           | 422         | 202      | 10      | 7           | 21                 | ..                    | 168         | ..       | ..                         | ..                   | ..                     | ..         | ..            | ..              | ..             | ..       | ..                        | ..         | ..                       | ..                    | ..                       | 1930   |
| 1905.....                                | ..            | 3         | 960            | 363         | 142      | ..      | 7           | 26                 | ..                    | 176         | ..       | ..                         | ..                   | ..                     | ..         | ..            | ..              | ..             | ..       | ..                        | ..         | ..                       | ..                    | ..                       | 1677   |
| 1906.....                                | ..            | ..        | 904            | 432         | 225      | ..      | 1           | 21                 | ..                    | 142         | ..       | ..                         | ..                   | ..                     | ..         | ..            | ..              | ..             | ..       | ..                        | ..         | ..                       | ..                    | ..                       | 1725   |
| 1907.....                                | ..            | 8         | 1044           | 384         | 92       | ..      | 5           | 23                 | ..                    | 136         | ..       | ..                         | ..                   | ..                     | ..         | 356           | ..              | ..             | ..       | ..                        | ..         | ..                       | ..                    | ..                       | 2048   |
| Average 5 years                          | ..            | 49        | 938            | 387         | 168      | 2       | 4           | 21                 | ..                    | 157         | ..       | ..                         | ..                   | ..                     | ..         | ..            | ..              | ..             | ..       | ..                        | ..         | ..                       | ..                    | ..                       | 1796   |
| 1908.....                                | ..            | ..        | 1341           | 629         | 181      | ..      | 7           | 27                 | ..                    | 127         | ..       | ..                         | ..                   | ..                     | ..         | 563           | ..              | ..             | ..       | ..                        | ..         | ..                       | ..                    | ..                       | 2875   |
| 1909.....                                | ..            | ..        | 1577           | 562         | 138      | ..      | 2           | 26                 | ..                    | 182         | ..       | ..                         | ..                   | ..                     | ..         | 581           | ..              | ..             | ..       | ..                        | ..         | ..                       | ..                    | ..                       | 3068   |
| 1910.....                                | ..            | ..        | 909            | 333         | 113      | ..      | ..          | 24                 | ..                    | 129         | ..       | ..                         | ..                   | ..                     | ..         | 651           | ..              | ..             | ..       | ..                        | ..         | ..                       | ..                    | ..                       | 2159   |
| 1911.....                                | ..            | ..        | 911            | 375         | 108      | ..      | 1           | 24                 | ..                    | 217         | ..       | ..                         | ..                   | ..                     | ..         | 714           | ..              | ..             | ..       | ..                        | ..         | ..                       | ..                    | ..                       | 2350   |
| 1912.....                                | ..            | ..        | 541            | 242         | 76       | ..      | 7           | 26                 | ..                    | 181         | ..       | 1                          | 29                   | ..                     | ..         | 1073          | ..              | ..             | ..       | ..                        | ..         | ..                       | ..                    | ..                       | 2206   |
| Average 5 years                          | ..            | ..        | 1056           | 428         | 123      | ..      | 3           | 25                 | ..                    | 167         | ..       | ..                         | ..                   | ..                     | ..         | 716           | ..              | ..             | ..       | ..                        | ..         | ..                       | ..                    | ..                       | 2532   |
| 1913.....                                | ..            | 4         | 1224           | 336         | 113      | ..      | 1           | 17                 | ..                    | 203         | 3        | 4                          | 2                    | ..                     | ..         | 1206          | 503             | ..             | ..       | ..                        | ..         | ..                       | ..                    | ..                       | 3616   |
| 1914.....                                | ..            | 1         | 2336           | 352         | 63       | ..      | ..          | 20                 | ..                    | 248         | 1        | 3                          | 5                    | 80                     | ..         | 1126          | 236             | ..             | ..       | ..                        | ..         | ..                       | ..                    | ..                       | 4471   |
| 1915.....                                | ..            | 1         | 997            | 236         | 84       | ..      | ..          | 23                 | ..                    | 172         | ..       | 9                          | 7                    | 97                     | ..         | 816           | 195             | ..             | ..       | ..                        | ..         | ..                       | ..                    | ..                       | 2637   |
| 1916.....                                | ..            | 8         | 442            | 204         | 47       | ..      | ..          | 13                 | ..                    | 124         | ..       | 9                          | 1                    | 60                     | 2065       | 745           | 241             | ..             | ..       | ..                        | ..         | ..                       | ..                    | ..                       | 3959   |
| 1917.....                                | ..            | ..        | 200            | 183         | 40       | ..      | ..          | 2                  | ..                    | 91          | ..       | 2                          | 2                    | 43                     | 3100       | 575           | 213             | ..             | ..       | ..                        | ..         | ..                       | ..                    | ..                       | 4401   |
| Average 5 years                          | ..            | 3         | 1040           | 252         | 69       | ..      | 1           | 15                 | ..                    | 167         | 1        | 5                          | 3                    | 70                     | 2582       | 893           | 278             | ..             | ..       | ..                        | ..         | ..                       | ..                    | ..                       | 3817   |
| 1918.....                                | ..            | ..        | 289            | 148         | 42       | ..      | ..          | 17                 | ..                    | 92          | ..       | 2                          | 2                    | 53                     | 766        | 556           | 143             | ..             | ..       | ..                        | ..         | ..                       | ..                    | ..                       | 2110   |
| 1919.....                                | ..            | 4         | 663            | 211         | 20       | ..      | ..          | 32                 | ..                    | 131         | ..       | 6                          | 3                    | 85                     | 2689       | 583           | 107             | ..             | 117      | ..                        | 56         | ..                       | 365                   | 4                        | 5078   |
| 1920.....                                | ..            | 1         | 1124           | 334         | 49       | ..      | 1           | 40                 | ..                    | 135         | ..       | 10                         | 1                    | 116                    | ..         | 574           | 120             | ..             | 42       | ..                        | 8          | ..                       | 230                   | 6                        | 2791   |
| 1921.....                                | ..            | ..        | 1746           | 313         | 41       | ..      | 2           | 19                 | ..                    | 146         | ..       | 9                          | ..                   | 81                     | ..         | 553           | 102             | ..             | 11       | ..                        | 1          | ..                       | 394                   | 7                        | 3425   |
| 1922.....                                | ..            | ..        | 1275           | 359         | 37       | ..      | ..          | 25                 | ..                    | 141         | ..       | 4                          | ..                   | 72                     | ..         | 510           | 101             | ..             | 6        | ..                        | ..         | ..                       | 426                   | 1                        | 2957   |
| Average 5 years                          | ..            | 1         | 1019           | 273         | 37       | ..      | 1           | 26                 | ..                    | 129         | ..       | 6                          | 1                    | 81                     | 1727       | 555           | 115             | 1              | 35       | ..                        | 13         | ..                       | 283                   | 4                        | 3272   |
| 1923.....                                | ..            | ..        | 868            | 304         | 27       | ..      | ..          | 22                 | ..                    | 98          | 1        | 5                          | 1                    | 57                     | ..         | 547           | 125             | ..             | 4        | ..                        | 1          | 114                      | 86                    | 8                        | 2268   |
| 1924.....                                | ..            | ..        | 413            | 286         | 26       | ..      | ..          | 18                 | ..                    | 89          | ..       | 4                          | 1                    | 56                     | ..         | 557           | 87              | ..             | 1        | 2                         | 1          | 461                      | 138                   | 59                       | 2189   |
| 1925.....                                | 1145          | ..        | 510            | 376         | 30       | ..      | ..          | 17                 | ..                    | 134         | ..       | 2                          | 1                    | 60                     | ..         | 507           | 132             | ..             | 1        | 1                         | ..         | 409                      | 132                   | 27                       | 3484   |
| 1926.....                                | ..            | ..        | 720            | 533         | 10       | ..      | ..          | 20                 | 12                    | 140         | ..       | 3                          | 4                    | 50                     | ..         | 532           | 123             | ..             | 1        | 4                         | ..         | 363                      | 99                    | 13                       | 2651   |
| 1927.....                                | ..            | 1         | 631            | 507         | 9        | ..      | ..          | 7                  | 27                    | 120         | ..       | 5                          | 4                    | 48                     | ..         | 573           | 148             | ..             | 2        | ..                        | 2          | 465                      | 158                   | 17                       | 2740   |
| Average 5 years (excluding Chicken pox). | ..            | 1         | 626            | 401         | 20       | ..      | ..          | 17                 | 20                    | 116         | 1        | 4                          | 2                    | 54                     | ..         | 543           | 123             | ..             | 2        | 1                         | 1          | 362                      | 123                   | 25                       | 2437   |
| 1928.....                                | ..            | 5         | 822            | 425         | 20       | ..      | 1           | 19                 | 28                    | 139         | ..       | 13                         | ..                   | 55                     | ..         | 454           | 166             | ..             | 1        | ..                        | ..         | 458                      | 80                    | 12                       | 2709   |
| 1929.....                                | ..            | ..        | 635            | 678         | 9        | ..      | ..          | 16                 | 18                    | 150         | ..       | 5                          | 2                    | 35                     | ..         | 522           | 112             | ..             | ..       | ..                        | ..         | 658                      | 168                   | 9                        | 3027   |

\*Measles notifiable in Salford 1916 to 1919. †Chicken-pox notifiable in Salford, January 22nd to December 31st, 1925.

## TUBERCULOSIS.

### Dispensary.

The Tuberculosis Dispensary is situate at Nos. 145 and 147, Regent Road, Salford. There are no branch dispensaries or visiting stations. The staff consists of two Medical Officers, four Health Visitors and three Clerks.

#### (a) Patients referred for Examination.

Nine hundred and thirty-five patients (including non-pulmonary cases) were referred to the Tuberculosis Officers for examination by general practitioners during 1929. It is to be regretted that, in many cases, primary notifications of tuberculosis are received when the disease is in such an advanced state that no treatment can be of lasting value, but during 1929 a noticeable improvement has taken place in this connection and more early and suspected cases have been sent in by the General Practitioners than in previous years. It is only by the co-operation of the general practitioners that your Tuberculosis Officers can deal with cases in their earliest and, therefore, most curable stages. All sputum examinations desired by Medical Practitioners are made at the Municipal Bacteriological Laboratory. Seven hundred and ninety two specimens were examined last year.

#### (b) Routine Procedure.

When a patient is notified to this Department by a general practitioner as suffering from tuberculosis in any form whatever, the home of such patient is immediately visited by one of the Health Visitors. Precautions as to the likelihood of the spread of infection, the advisability



of separate sleeping accommodation, etc., are advised, and efforts are made to secure the attendance at the dispensary of all contacts residing in the same house. Five hundred and forty contacts were examined last year.

It happens not infrequently that a diagnosis cannot be made on first examination of a patient at the dispensary, and in all such cases the patients are re-invited to attend the dispensary periodically until a definite diagnosis is made, when they are either placed under treatment or observation or discharged.

In some cases of advanced disease where removal to an Institution for treatment is impracticable, and adequate nursing is impossible under the patient's home conditions, arrangements are made with the District Nursing Association, and the patients are visited daily (in some cases twice daily) in their homes by a trained nurse. In the case of patients in extreme poverty and recommended by the Tuberculosis Officers as being suitable for the granting of extra nourishments, arrangements are made with milk dealers in the City for milk and eggs to be supplied each day.

The usual types of cases receiving these nourishments are (a) patients who have received an adequate course of sanatorium treatment and whose medical condition is such that, with the grant of extra nourishment, they may be expected to maintain or recover full working capacity; and (b) patients in whose cases ultimate arrest of the disease may reasonably be anticipated, and who are waiting for admission to a sanatorium.



### (c) X-ray Examinations.

X-ray examinations are now made at the dispensary in large numbers, and this method of examination is found to be an invaluable aid, not only for purposes of diagnosis but in obtaining information as to the real extent of the disease in the lungs of the patient. It is also of great value in determining the results of treatment. One thousand and eighteen cases were examined by X-rays last year. These examinations have been found of great value to General Practitioners in the differentiation of other chronic diseases of the lung simulating tuberculosis, many of which in the past have been diagnosed as cases of pulmonary tuberculosis. It should also be noted that considerable time is now saved in making a definite diagnosis of chest diseases, and patients are not now required to be kept under observation for periods of longer than one or two months before a final decision is made.

A complete new X-ray apparatus of the latest type was installed at the Tuberculosis Dispensary in September. This has enabled the Tuberculosis Officers to commence the treatment of selected cases by artificial pneumothorax.

### (d) Treatment by Artificial Pneumothorax.

Seven patients have been placed under this treatment during the last three months of the year, the primary induction being effected at the Ladywell Sanatorium, and after discharge from that Institution the refills have been continued at the Dispensary.

Refills have also been continued in the case of three patients who had the primary induction at other

Sanatoria. In the case of two of the above ten patients, the treatment had to be abandoned on account of adhesions, but the other eight patients are doing very well, and in the three cases the patients have been able to return to work and are keeping in good health.

It is intended to carry out this treatment on all cases which do not show signs of improvement after three months' sanatorium treatment and in which the disease is mainly one-sided.

#### **(e) Insured Persons.**

Insured patients not in need of Institutional treatment are usually placed on domiciliary treatment, that is to say, they are treated by their own doctors whilst residing at home, and records of progress should be furnished every three months by the attending Medical Practitioners on Form G.P.36. These patients are examined from time to time by one of the Tuberculosis Officers.

#### **(f) Effects of Dispensary Treatment.**

The effects of dispensary treatment depends chiefly upon the degree of acuteness of disease in each individual case, the home conditions, the facilities for obtaining suitable food, and the general habits of the patient. Acute cases do not do well as a rule, but the bulk of the patients attending are cases of chronic disease, whose condition appears to keep stationary for long periods.

### **INSTITUTIONAL TREATMENT.**

#### **(a) Nab Top and Ladywell Sanatoria.**

The residential institutions in connection with the Tuberculosis scheme are :—

- (a) Nab Top Sanatorium, Marple.
- (b) Ladywell Sanatorium, Salford.



There are 120 beds available at the Nab Top Sanatorium, Marple, for the treatment of Salford patients. These beds are occupied principally by observation, early, and intermediate cases of pulmonary tuberculosis. Occasionally, however, cases of surgical tuberculosis are admitted for treatment.

At the Ladywell Sanatorium there are 66 beds set apart for the treatment of tuberculosis. Many cases are being admitted to the Ladywell Sanatorium for purposes of observation as to temperature; subsequently, on becoming afebrile, they are transferred to the Nab Top Sanatorium, Marple, for open-air sanatorium treatment. It has been found that many cases of quite moderate severity do badly at an open-air sanatorium such as Nab Top, where they are completely in the open air, but when admitted to the Ladywell Sanatorium, in which, while there is an abundance of fresh air, the patient is not actually living and sleeping in the open air, excellent progress is made, and the patient's temperature rapidly falls. Numbers of these patients have been transferred from the Nab Top Sanatorium, where they had been in bed continually for several months with no apparent improvement, and on transfer to the Ladywell Sanatorium immediate improvement with a fall of temperature has been noticed. It is, consequently, of great value to have two Institutions of different type for the treatment of pulmonary tuberculosis.

The Ladywell Sanatorium is also largely used for the isolation of advanced cases; such isolation is undoubtedly of great value in lessening the danger of massive



infection in the homes, but is detracted from, by the difficulty of keeping the patients in hospital indefinitely.

### (b) Treatment of School Children.

Cases of definite, or suspected, pulmonary or other forms of tuberculosis in children are always referred by the School Medical Officers to the Tuberculosis Officers for examination. Many of these cases are sent to Nab Top Sanatorium for treatment or observation. A school under the control of an efficient teacher has been established at the Nab Top Sanatorium in order that the child patients may not suffer educationally during their period of treatment. Delicate or pre-tubercular children definitely without signs of lung disease are referred to the School Medical Department for open-air school treatment.

### (c) Treatment of Tuberculous Skin Diseases.

Special arrangements have been made with the Manchester and Salford Hospital for Skin Diseases for the treatment of lupus and other tuberculous skin diseases, and a large number of cases were approved for artificial sunlight treatment. There is no doubt that this form of treatment has very considerable beneficial effect in the treatment of tuberculous skin disease, recovery being much more rapid than in cases treated by local applications only. The number of visits paid by patients for artificial sunlight treatment during the year was one thousand six hundred and sixty-three. The total number of tuberculous skin cases treated was sixty-nine, and the total number of attendances at the Skin Hospital, two thousand two hundred and seventy-seven.

### (d) Treatment of Surgical Tuberculosis.

Cases of surgical tuberculosis, after approval by the Tuberculosis Officer, are treated when necessary at the Salford Royal Hospital. At the request of the Surgeons at the Salford Royal Hospital a number of cases of surgical tuberculosis have been sent to the Open-Air Sanatorium at Marple for varying periods after immobilisation, where necessary, of the affected part. These cases have derived very considerable benefit from their stay at the Sanatorium.

### GENERAL REMARKS.

The powers contained in the Salford Corporation Act, 1920, and the Public Health Act, 1925, for the compulsory removal to hospital of persons suffering from pulmonary tuberculosis, have not been utilised up to the present time.

It has been found that in obstinate cases of advanced disease, it is sufficient to warn the patient that compulsory powers can be put in force on application to a magistrate.

No action has been taken under the Public Health (Prevention of Tuberculosis) Regulations, 1925, in connection with tuberculous employees in the milk trade.

The new Artificial Sunlight Clinic was opened in June, and three sessions per week have been allotted to the Tuberculosis Department for the treatment of cases of surgical tuberculosis. Great improvement has been noted in cases of tubercular gland disease in which open

sinuses have been present. These have derived very great benefit, and the sinuses, which in some cases had been discharging continuously for six months to two years, have definitely closed, and the patient's general health has been very greatly improved. Several cases of tuberculous joint disease have also been submitted to this treatment, but so far do not show any marked signs of improvement. No cases of pulmonary tuberculosis have as yet been given treatment by ultra violet rays.

I regret to state that, in spite of the general practitioners in the City being circularized from time to time with reference to the notification of tuberculosis, the percentage of cases of pulmonary tuberculosis not notified before death has increased from 11.94 per cent in 1928 to 12.32 per cent in 1929.

The percentage of fatal cases notified within three months of death also shows a further increase over the previous year's figures. (See Table II.).

This is most regrettable, as nothing in the form of treatment can be afforded such patients.



TABLE 1.  
SUMMARY OF WORK DONE AT THE TUBERCULOSIS  
DISPENSARY IN 1929.

| Diagnosis.                                                                                                  | Pulmonary. |     |          |    | Non-Pulmonary. |    |          |    | Total.  |     |          |     |
|-------------------------------------------------------------------------------------------------------------|------------|-----|----------|----|----------------|----|----------|----|---------|-----|----------|-----|
|                                                                                                             | Adults.    |     | Children |    | Adults.        |    | Children |    | Adults. |     | Children |     |
|                                                                                                             | M.         | F.  | M.       | F. | M.             | F. | M.       | F. | M.      | F.  | M.       | F.  |
| A. New cases examined during the year—                                                                      |            |     |          |    |                |    |          |    |         |     |          |     |
| (a) Definitely tuberculous .....                                                                            | 171        | 146 | 9        | 9  | 15             | 11 | 9        | 17 | 186     | 157 | 18       | 26  |
| (b) Doubtfully tuberculous .....                                                                            | —          | —   | —        | —  | —              | —  | —        | —  | 66      | 60  | 12       | 11  |
| (c) Non-tuberculous..                                                                                       | —          | —   | —        | —  | —              | —  | —        | —  | 168     | 139 | 57       | 41  |
| B. Contacts examined during the year—                                                                       |            |     |          |    |                |    |          |    |         |     |          |     |
| (a) Definitely tuberculous .....                                                                            | 2          | 2   | 1        | 1  | —              | —  | —        | 1  | 2       | 2   | 1        | 2   |
| (b) Doubtfully tuberculous .....                                                                            | —          | —   | —        | —  | —              | —  | —        | —  | 4       | 5   | 10       | 6   |
| (c) Non-tuberculous..                                                                                       | —          | —   | —        | —  | —              | —  | —        | —  | 62      | 134 | 167      | 145 |
| C. Cases written off Dispensary Register as—                                                                |            |     |          |    |                |    |          |    |         |     |          |     |
| (a) Cured .....                                                                                             | 4          | 7   | 1        | —  | —              | 2  | 1        | 2  | 4       | 9   | 2        | 2   |
| (b) Diagnosis not confirmed or non-tuberculous ....                                                         | —          | —   | —        | —  | —              | —  | —        | —  | 288     | 325 | 242      | 200 |
| D. Number of persons on Dispensary Register on December 31st—                                               |            |     |          |    |                |    |          |    |         |     |          |     |
| (a) Diagnosis completed .....                                                                               | 629        | 453 | 51       | 44 | 59             | 49 | 52       | 47 | 688     | 502 | 103      | 91  |
| (b) Diagnosis not completed .....                                                                           | —          | —   | —        | —  | —              | —  | —        | —  | 21      | 23  | 5        | 4   |
| 1. No. of persons on Dispensary Register on January 1st.... 1296                                            |            |     |          |    |                |    |          |    |         |     |          |     |
| 4. Died during the year (Dispensary cases) ..... 193                                                        |            |     |          |    |                |    |          |    |         |     |          |     |
| 2. No. of patients transferred from other areas and "lost sight of" cases returned.... 32                   |            |     |          |    |                |    |          |    |         |     |          |     |
| 5. No. of observation cases under A (b) and B (b) in which period of observation exceeded 2 months ..... 94 |            |     |          |    |                |    |          |    |         |     |          |     |
| 3. No. of patients transferred to other areas and cases "lost sight of" ..... 107*                          |            |     |          |    |                |    |          |    |         |     |          |     |

\* Including one observation case who left the area before completion of diagnosis and one observation case "not desiring public medical treatment."

TABLE 1—Continued.

|                                                                                                              |      |                                                                                     |      |
|--------------------------------------------------------------------------------------------------------------|------|-------------------------------------------------------------------------------------|------|
| 6. No. of attendances at Dispensary (including contacts) .....                                               | 4654 | 11. No. of other visits by Tuberculosis Officers to homes ...                       | 20   |
| 7. No. of attendances of non-pulmonary cases at Orthopædic Out-Stations for treatment or supervision ...     | Nil. | 12. No. of visits by Nurses or Health Visitors to homes for Dispensary purposes.... | 7253 |
| 8. No. of attendances at General Hospitals, or other Institutions approved for the purpose, of patients for— |      | 13. No. of—                                                                         |      |
| (a) "Light" treatment .....                                                                                  | 1663 | (a) Specimens of sputum, &c., examined .....                                        | 840  |
| (b) Other special forms of treatment .....                                                                   | 614  | (b) X-ray examinations made in connection with Dispensary work.....                 | 1018 |
| 9. No. of patients to whom Dental Treatment was given at or in connection with the Dispensary .....          | Nil. | 14. No. of insured persons on Dispensary Register on December 31st .....            | 906  |
| 10. No. of consultations with medical practitioners—                                                         |      | 15. No. of insured persons under Domiciliary treatment on December 31st .....       | 494  |
| (a) At homes of applicants ...                                                                               | 98   | 16. No. of reports received during the year in respect of insured persons—          |      |
| (b) Otherwise .....                                                                                          | 837  | (a) Form G.P. 17 .....                                                              | 23   |
|                                                                                                              |      | (b) Form G.P. 36 .....                                                              | 67   |

**TABLE 2.**

SHOWING PERIOD ELAPSING BETWEEN NOTIFICATION AND DEATH  
IN FATAL CASES OF PHTHISIS.

|                                                |    | Number. | Per-centage. |
|------------------------------------------------|----|---------|--------------|
| Not notified before death .....                | 34 | ..      | 12·32        |
| Notified within three months of death .....    | 82 | ..      | 29·71        |
| „ from three months to one year before death.. | 57 | ..      | 20 65        |
| „ from one year to two years before death....  | 43 | ..      | 15·58        |
| Over two years .....                           | 60 | ..      | 21·74        |

Total number of deaths, 276.

Ratio of non-notified cases to total fatal cases, 34—276.

**TABLE 3.**

NEW CASES AND MORTALITY DURING 1929.

| Age Periods.        | New Cases. |     |                |    | Deaths.    |     |                |    |
|---------------------|------------|-----|----------------|----|------------|-----|----------------|----|
|                     | Pulmonary. |     | Non-Pulmonary. |    | Pulmonary. |     | Non-Pulmonary. |    |
|                     | M.         | F.  | M.             | F. | M.         | F.  | M.             | F. |
| 0 .....             | ..         | 1   | 3              | .. | ..         | 1   | 3              | .. |
| 1 .....             | 3          | 4   | 10             | 11 | 1          | 1   | 1              | 6  |
| 5 .....             | 12         | 8   | 22             | 9  | 2          | ..  | 3              | .. |
| 10 .....            | 10         | 9   | 7              | 6  | 1          | 6   | 2              | 2  |
| 15 .....            | 25         | 30  | 8              | 9  | 10         | 11  | 7              | 2  |
| 20 .....            | 26         | 52  | 4              | 5  | 13         | 17  | 3              | .. |
| 25 .....            | 55         | 58  | 3              | 3  | 34         | 21  | 1              | 2  |
| 35 .....            | 52         | 39  | 3              | 1  | 40         | 24  | ..             | .. |
| 45 .....            | 66         | 16  | 2              | 2  | 44         | 9   | ..             | .. |
| 55 .....            | 33         | 12  | ..             | 2  | 26         | 9   | 1              | 2  |
| 65 and upwards..... | 7          | 4   | 2              | .. | 4          | 2   | 1              | .. |
| Totals .....        | 289        | 233 | 64             | 48 | 175        | 101 | 22             | 14 |



TABLE 4.

OCCUPATIONS OF THE 522 CASES OF PULMONARY  
TUBERCULOSIS NOTIFIED.

## MALES.

|                                                        |    |                                         |     |
|--------------------------------------------------------|----|-----------------------------------------|-----|
| 1. Joiners, House Decorators<br>and Building Trades .. | 11 | 18. Insurance Agents .....              | 1   |
| 2. Carters and Hawkers ..                              | 8  | 19. Errand Boys .....                   | 2   |
| 3. Labourers and Navvies                               | 73 | 20. Bakers .....                        | 1   |
| 4. Railway Workers .....                               | 4  | 21. Warehousemen.....                   | 8   |
| 5. Clerks and Typists ....                             | 10 | 22. Boxmakers .....                     | 2   |
| 6. Makers of Wearing<br>Apparel .....                  | 14 | 23. Packers .....                       | 2   |
| 7. Colliers .....                                      | 1  | 24. Waiters .....                       | 2   |
| 8. Mechanics and Engineer-<br>ing Workers .....        | 33 | 25. Scholars.....                       | 18  |
| 9. Commercial Travellers .                             | 3  | 26. Tramway Workers .....               | 6   |
| 10. Seamen .....                                       | 2  | 27. Publicans .....                     | 1   |
| 11. Printers and Bookbind-<br>ing Trades .....         | 3  | 28. Lift Attendants .....               | 4   |
| 12. Shop Assistants .....                              | 3  | 29. Postmen .....                       | 2   |
| 13. Cotton Workers.....                                | 4  | 30. Storekeepers .....                  | 3   |
| 14. Electricians.....                                  | 5  | 31. Rubber Workers.....                 | 7   |
| 15. Plumbers.....                                      | 2  | 32. Miscellaneous Occupa-<br>tions..... | 30  |
| 16. Dyers and Bleachers ...                            | 4  | 33. No occupation .....                 | 11  |
| 17. Employees in Motor<br>Trades .....                 | 9  |                                         |     |
|                                                        |    | Total .....                             | 289 |

## FEMALES.

|                                               |    |                                         |     |
|-----------------------------------------------|----|-----------------------------------------|-----|
| 1. Clerks and Typists ....                    | 12 | 11. Domestic Servants .....             | 7   |
| 2. Makers of Wearing<br>Apparel .....         | 33 | 12. Packers .....                       | 2   |
| 3. Printing and Bookbind-<br>ing Trades ..... | 4  | 13. Toffee Workers .....                | 2   |
| 4. Shop Assistants .....                      | 10 | 14. Waitresses.....                     | 4   |
| 5. Cotton Workers.....                        | 15 | 15. School Teachers .....               | 1   |
| 6. Dyers and Bleachers ...                    | 1  | 16. Scholars.....                       | 14  |
| 7. Housewives.....                            | 75 | 17. Rubber Workers .....                | 2   |
| 8. Charwomen and Laun-<br>dresses .....       | 8  | 18. Miscellaneous Occupa-<br>tions..... | 25  |
| 9. Warehousewomen .....                       | 3  | 19. No Occupations.....                 | 11  |
| 10. Boxmakers .....                           | 4  |                                         |     |
|                                               |    | Total .....                             | 233 |

The School Medical Officers notified 4 new cases of non-pulmonary tuberculosis on Form "B."

During the year 1929, 112 new notifications of non-pulmonary tuberculosis have been received.

The new cases of non-pulmonary tuberculosis notified are classified in the following table:—

|                     | Glands. | Bones. | Abdo-<br>men. | Skin. | Men-<br>inges. | Other<br>forms. | Totals. |
|---------------------|---------|--------|---------------|-------|----------------|-----------------|---------|
| Under 10 years ...  | 11      | 15     | 17            | 2     | 10             | ..              | 55      |
| 10 to 20 years .... | 8       | 9      | 6             | 4     | 2              | 1               | 30      |
| 20 „ 30 „ .....     | 5       | 3      | 1             | 3     | ..             | 2               | 14      |
| 30 „ 40 „ .....     | 2       | 2      | 1             | ..    | ..             | ..              | 5       |
| Over 40 „ .....     | ..      | 3      | 2             | 2     | ..             | 1               | 8       |
| Totals .....        | 26      | 32     | 27            | 11    | 12             | 4               | 112     |

## Nab Top Sanatorium—Annual Report.

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RESIDENT STAFF.—Medical Superintendent, Matron, Home Sister, two Ward Sisters, eleven Nurses, Cook, Laundress, seventeen Maids and Lodge Porter.

NON-RESIDENT STAFF. — Engineer, Porter, two Gardeners, and Labourer.

ACCOMMODATION.—There is accommodation for 120 patients (62 adult males, 42 adult females, 8 male children, and 8 female children).

TYPE OF CASE TREATED.—The Sanatorium is used for the treatment of early and intermediate cases of Phthisis.

A few advanced cases who show good resistance to the disease are also treated. A number of “observation” cases are admitted.

LINES OF TREATMENT.—The treatment adopted is chiefly Hygienic—open air, rest and graduated exercise.

On admission, patients, after a period of rest in bed, are put on walking exercise, the distance being gradually increased. Afterwards this is supplemented by light ward work. Those who show a satisfactory resistance are then placed on graduated work, beginning with light gardening work and rising to heavier work such as grass cutting and lawn rolling, wheelbarrow work



and digging. Walking exercise is taken round two fields, the circumference of that reserved for women being one-quarter mile, and that for men one-third of a mile. The Hygienic treatment is supplemented, when necessary, by drug treatment. Suitable cases are treated by tuberculin.

FARM.—A poultry farm maintained on the premises supplies many of the eggs required for consumption. Most of the vegetables used in this Institution are also grown in the grounds of the Sanatorium.

RECREATION.—The dining hall is set apart for the use of patients every Saturday evening after supper, where whist and other card games are indulged in. A wireless set is in daily use, each bed being provided with a pair of ear phones. There is also a loud speaker in the dining hall. Concerts are arranged about once a month from October to April, given by outside talent, and on many occasions during the winter plays have been staged.

There is also a large bowling green and clock golf green for the men, and a bowling and croquet green for the women.

CANTEEN.—A canteen has been established in the grounds wherein are sold those articles likely to be used in everyday life.

EDUCATION.—The Resident Medical Officer at frequent intervals delivers lectures to the patients on such subjects as "Pulmonary Tuberculosis," "Rules of Health" and "The Care of the Mouth and Teeth." It is hoped that

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on leaving, patients may carry out the instructions given in these lectures and thus minimise the spread of infection in their own homes.

A school, under the guidance of a competent teacher, has been established for patients under 16 years of age. This has been a boon to those children whose state of health has not permitted them to attend the ordinary school at home. No child is allowed to attend school unless certified physically fit by the Medical Superintendent.

Appended is a table showing the number of admissions, etc., and the number of patient days during the year 1929.

TABLE A—(Nab Top Sanatorium.)

SHOWING THE NUMBER OF ADMISSIONS, ETC., AND THE NUMBER OF ‘PATIENT-DAYS’  
DURING THE YEAR 1929.

|                                                                                                                         | Total Adults. |         | Children under 15. |         |       | Totals. |         |       |
|-------------------------------------------------------------------------------------------------------------------------|---------------|---------|--------------------|---------|-------|---------|---------|-------|
|                                                                                                                         | Males.        | Females | Males.             | Females | Both. | Males.  | Females | Both. |
| Number of Patients admitted in 1928 who remained in Sanatorium for some part of 1929 .....                              | 37            | 27      | 14                 | 6       | 20    | 51      | 33      | 84    |
| Number of “Patient-days” in 1929 for patients admitted in 1928 and who remained in Sanatorium for some part of 1929.... | 3838          | 2264    | 1384               | 614     | 1998  | 5222    | 2878    | 8100  |
| Total admissions 1929..                                                                                                 | 143           | 98      | 34                 | 25      | 59    | 177     | 123     | 300   |
| Total discharges and deaths 1929.....                                                                                   | 147           | 94      | 42                 | 26      | 68    | 189     | 120     | 309   |
| Number of “Patient-days” for persons admitted during 1929.                                                              | 12862         | 9610    | 3303               | 1982    | 5285  | 16165   | 11592   | 27757 |
| Total number of “Patient-days” for 1929.....                                                                            | 16700         | 11874   | 4687               | 2596    | 7283  | 21387   | 14470   | 35857 |
| Average number of Patients in Sanatorium each day during 1929.                                                          | 46            | 33      | 12                 | 8       | 20    | 58      | 41      | 99    |

NOTE.—The term “Patient-days” represents the product of the number of patients and the number of days spent by these patients in the Sanatorium.



TABLE B.—PATIENTS DISCHARGED FROM NAB TOP SANATORIUM DURING 1929.

| Condition at Time of Discharge.             | Duration of Residential Treatment in Institution. |    |     |                |    |     |                 |    |     |                 |    |     |
|---------------------------------------------|---------------------------------------------------|----|-----|----------------|----|-----|-----------------|----|-----|-----------------|----|-----|
|                                             | Under 3 Months.                                   |    |     | 3 to 6 Months. |    |     | 6 to 12 Months. |    |     | Over 12 Months. |    |     |
|                                             | M.                                                | F. | Ch. | M.             | F. | Ch. | M.              | F. | Ch. | M.              | F. | Ch. |
|                                             |                                                   |    |     |                |    |     |                 |    |     |                 |    |     |
| Quiescent .....                             | 5                                                 | 1  | ..  | 7              | 9  | 1   | 2               | 8  | 1   | ..              | .. | 2   |
| Improved .....                              | 39                                                | 19 | 11  | 20             | 15 | 3   | 14              | 8  | 5   | 2               | 1  | 1   |
| No Material Improvement                     | 28                                                | 13 | 2   | 15             | 6  | ..  | 2               | 4  | 1   | 3               | .. | 1   |
| Died .....                                  | ..                                                | .. | ..  | ..             | 1  | ..  | ..              | .. | ..  | ..              | .. | ..  |
| Totals .....                                | 72                                                | 33 | 13  | 42             | 31 | 4   | 18              | 20 | 7   | 5               | 1  | 4   |
| Pulmonary Tuberculosis.....                 | Quiescent .....                                   | .. | ..  | 1              | .. | ..  | ..              | .. | 1   | ..              | .. | ..  |
|                                             | Improved .....                                    | 2  | 1   | 1              | 2  | ..  | 1               | 2  | 4   | ..              | .. | ..  |
|                                             | No Material Improvement                           | .. | ..  | ..             | .. | ..  | 1               | .. | ..  | ..              | .. | ..  |
|                                             | Died .....                                        | .. | ..  | ..             | .. | ..  | ..              | .. | ..  | ..              | .. | ..  |
|                                             | Totals .....                                      | 2  | 1   | 2              | 2  | ..  | 3               | 2  | 2   | 5               | .. | ..  |
| Non-Pulmonary Tuberculosis.                 | Quiescent .....                                   | .. | ..  | ..             | .. | ..  | ..              | .. | ..  | ..              | .. | ..  |
|                                             | Improved .....                                    | 2  | 1   | 1              | 2  | ..  | 3               | 1  | 2   | 4               | .. | ..  |
|                                             | No Material Improvement                           | .. | ..  | ..             | .. | ..  | 1               | .. | ..  | ..              | .. | ..  |
|                                             | Died .....                                        | .. | ..  | ..             | .. | ..  | ..              | .. | ..  | ..              | .. | ..  |
|                                             | Totals .....                                      | 2  | 1   | 2              | 2  | ..  | 3               | 2  | 2   | 5               | .. | ..  |
| Observation for Purposes of Diagnosis ..... | Under 1 week.                                     |    |     | 1—2 weeks.     |    |     | 2—4 weeks.      |    |     | Over 4 weeks.   |    |     |
|                                             | ..                                                | .. | ..  | 1              | 1  | ..  | 2               | 1  | 2   | ..              | 1  | 9   |
|                                             | ..                                                | .. | ..  | ..             | .. | ..  | ..              | 2  | 2   | 1               | .. | 17  |
|                                             | ..                                                | .. | ..  | ..             | .. | ..  | ..              | 1  | ..  | ..              | .. | ..  |
|                                             | ..                                                | .. | ..  | ..             | .. | ..  | ..              | 1  | ..  | ..              | .. | ..  |

## LADYWELL SANATORIUM.

TABLE SHOWING THE NUMBER OF ADMISSIONS, ETC., AND THE NUMBER  
OF "PATIENT-DAYS" FOR 1929.

## TUBERCULOSIS CASES.

|                                                                                                                                    | Males. | Females. | Totals. |
|------------------------------------------------------------------------------------------------------------------------------------|--------|----------|---------|
| Total Number of Admissions during<br>1929.....                                                                                     | 152    | 123      | 275     |
| Number of Persons Admitted prior to<br>1929 who remained in Hospital<br>for some part of 1929 .....                                | 30     | 19       | 49      |
| Total Number of Discharges and<br>Deaths during 1929 .....                                                                         | 146    | 116      | 262     |
| Patients in Hospital on the 31st<br>December, 1929.....                                                                            | 36     | 26       | 62      |
| Number of "Patient-days" for<br>Persons Admitted during 1929...                                                                    | 9925   | 7931     | 17856   |
| Number of "Patient-days" (in<br>1929) for Persons Admitted prior<br>to 1929 who remained in Hospital<br>for some part of 1929..... | 2478   | 1672     | 4150    |
| Total Number of "Patient-days"<br>for 1929 .....                                                                                   | 12403  | 9603     | 22006   |
| Average Number of Patients in<br>Hospital each day during 1929...                                                                  | 33.98  | 26.31    | 60.29   |

## Ladywell Sanatorium.

### REPORT FOR THE YEAR 1929.

At the beginning of the year there were 228 cases remaining in hospital; these with the 2,130 admitted during the year make a total of 2,358 cases under treatment. Of these 1,958 were discharged, 139 died, and 261 were in hospital at the end of the year. The number of cases treated, viz., 2,358 compares with 2,260 in 1928 and with 1,765·8, the average of the cases treated for the five years ended December 31st, 1928.

The cases treated were as follows:—

|                        |      |
|------------------------|------|
| Scarlet Fever .....    | 811  |
| Diphtheria.....        | 646  |
| Enteric Fever.....     | 10   |
| Measles .....          | 24   |
| Erysipelas .....       | 102  |
| Puerperal Fever.....   | 31   |
| Other Diseases .....   | 340  |
| Tuberculosis .....     | 323  |
| Mixed Infections ..... | 71   |
|                        | 2358 |

The number of cases from Out-Districts was 423, as compared with 446 in 1928.



The daily average number of patients in 1929 was 249·1 ; the highest number being 297 on November 12th, and the lowest 217 on April 13th. 2,130 patients were admitted during the year, as compared with 1,995 in 1928 and with 1,581·6, the average for the five years ended December 31st, 1928. The following summary shows the diagnosis of the cases before admission and after observation in hospital :—

|                            | Diagnosis<br>before<br>Admission. |    | Diagnosis<br>after<br>Observation. |                      |
|----------------------------|-----------------------------------|----|------------------------------------|----------------------|
| Scarlet Fever . . . . .    | 795                               | .. | 707                                |                      |
| Diphtheria . . . . .       | 805                               | .. | 606                                |                      |
| Enteric Fever . . . . .    | 19                                | .. | 10                                 |                      |
| Measles . . . . .          | 8                                 | .. | 24                                 |                      |
| Erysipelas . . . . .       | 105                               | .. | 96                                 |                      |
| Puerperal Fever . . . . .  | 28                                | .. | 27                                 |                      |
| Cerebro-Spinal Fever . . . | 1                                 | .. | 1                                  | } Other<br>Diseases. |
| Encephalitis Lethargica .  | 2                                 | .. | 1                                  |                      |
| Chicken Pox . . . . .      | —                                 | .. | 7                                  |                      |
| Miscellaneous Diseases .   | 79                                | .. | 317                                |                      |
| Mixed Infections . . . . . | 13                                | .. | 60                                 |                      |
| Advanced Tuberculosis . .  | 275                               | .. | 274                                |                      |

Details of the alterations in diagnosis will be found in table 5, pages 132 and 133. A tabulation of the cases classified as “other diseases” will be found on page 126.

MIXED DISEASES—Sixty of the patients admitted were found to be suffering from two distinct diseases, as follows :—

|                                                    |    |
|----------------------------------------------------|----|
| Diphtheria and Scarlet Fever.....                  | 18 |
| Diphtheria and Whooping Cough.....                 | 4  |
| Diphtheria and Mitral Heart Disease.....           | 1  |
| Diphtheria (bacter.) and Burns.....                | 1  |
| Diphtheria and Cerebro-Spinal Fever.....           | 1  |
| Diphtheria and Measles.....                        | 4  |
| Diphtheria and Chicken Pox.....                    | 3  |
| Diphtheria and Broncho-Pneumonia.....              | 1  |
| Diphtheria, Broncho-Pneumonia and Measles....      | 1  |
| Diphtheria and Retro-Pharyngeal Abscess.....       | 1  |
| Diphtheria and Rubella.....                        | 1  |
| Diphtheria, Osteomyelitis and Erysipelas (leg).... | 1  |
| Diphtheria (bacter.) and Tonsillitis.....          | 2  |
| Scarlet Fever and Whooping Cough.....              | 5  |
| Scarlet Fever and Chicken Pox.....                 | 5  |
| Scarlet Fever and Broncho-Pneumonia.....           | 1  |
| Scarlet Fever and Retro-Pharyngeal Abscess....     | 1  |
| Scarlet Fever and Burns.....                       | 1  |
| Scarlet Fever and Measles.....                     | 3  |
| Scarlet Fever and Lobar Pneumonia.....             | 1  |
| Measles and Broncho-Pneumonia.....                 | 2  |
| Rubella and Whooping Cough.....                    | 1  |
| Erysipelas and Chronic Bronchitis.....             | 1  |

DEATHS FROM MIXED DISEASES:—In this group the concurrent affections directly or partially caused a fatal termination in 10 cases, as follows:—

|                                                |    |
|------------------------------------------------|----|
| Diphtheria and Whooping Cough.....             | 1  |
| Diphtheria and Aneurysm (L. carotid).....      | 1  |
| Diphtheria and Scarlet Fever.....              | 2  |
| Diphtheria and Mitral Heart Disease.....       | 1  |
| Diphtheria and Cerebro-Spinal Fever.....       | 1  |
| Diphtheria and Retro-Pharyngeal Abscess.....   | 1  |
| Diphtheria, Osteomyelitis and Erysipelas.....  | 1  |
| Measles and Broncho-Pneumonia.....             | 1  |
| Scarlet Fever and Retro-Pharyngeal Abscess.... | 1  |
|                                                | 10 |

The average stay in hospital for all mixed diseases cases discharged well in 1929 was 54.51 days, and for those that died 22.7.

CROSS INFECTION:—The above cases of Mixed Infection, and cases admitted under a wrong diagnosis in which the actual diseases could only be ascertained after a time, gave rise to secondary infections in the wards. Every effort was made to prevent cross infection by careful examination of new patients before admission to the wards, and by employing the usual methods of Dick and Schick tests and immunization of susceptibles. In spite of these precautions, it has always, and more especially when the wards are full, been difficult to prevent the spread of any infection in the wards in this hospital, owing to the fact that much too great a proportion of the beds are in large wards, and that



the isolation accommodation is in proportion quite inadequate. In large wards, in contrast to small wards, the chances of another infection being brought in by new admissions are greatly increased, and a larger number of patients is exposed to the infection once it appears there.

The wards are arranged in six units of one large ward ( $120' \times 26'$ ) and one smaller, but still fairly large ward, ( $45' \times 26'$ ), with the kitchen and hall between them, in three separate two storey blocks. In addition, there are two newer blocks containing two large wards each.

- C5. ( $108' \times 26'$ )      One of these wards is now a bed isolation ward. The other is being converted for similar use.
- C4. ( $160' \times 26'$ )      Both wards reserved for advanced tuberculosis.

The isolation block comprises two storeys of four rooms each, two rooms of three beds ( $22' \times 20'$ ) and two rooms of four beds ( $32' \times 20'$ ), making a total of 28 beds. This is the only isolation accommodation available. This year one 16 bed ward of C5 block ( $104' \times 26'$ ) has been converted into a bed isolation ward and has proved very useful. Its work is reviewed on another page.

The number of patients discharged in 1929 who contracted another infection was as follows:—

Sent in as:—

|                             |                     |                |
|-----------------------------|---------------------|----------------|
| Scarlet Fever and developed | Whooping Cough....  | 5              |
| „ „ „ „                     | Chicken Pox .....   | 5              |
| „ „ „ „                     | „ „ and             |                |
|                             | Whooping Cough....  | 2              |
| „ „ „ „                     | Diphtheria .....    | 3              |
| Diphtheria „ „              | Whooping Cough....  | 1              |
| „ „ „ „                     | Scarlet Fever ..... | 1              |
| „ „ „ „                     | Chicken Pox.....    | 3              |
| Mixed Infection „ „         | Erysipelas .....    | 1              |
| „ „ „ „                     | Chicken Pox.....    | 1              |
| Gastritis „ „               | Diphtheria .....    | 1              |
| Puerperal Fever „ „         | Erysipelas.....     | 1              |
|                             |                     | <hr/> 24 <hr/> |

The average stay in hospital of the 24 cross-infected cases discharged well during 1929 was 75.7 days.

DEATHS.—139 cases had a fatal termination, as follows:—

| Disease.                    | Number of Deaths. | Fatality Rate. |
|-----------------------------|-------------------|----------------|
| Scarlet Fever .....         | 2                 | 0.26%          |
| Diphtheria.....             | 36                | 6.4%           |
| Erysipelas .....            | 2                 |                |
| Enteric Fever.....          | 3                 |                |
| Puerperal Fever.....        | 5                 |                |
| Advanced Tuberculosis ..... | 66                |                |

| Disease.                      | Number of Deaths. | Fatality Rate. |
|-------------------------------|-------------------|----------------|
| Whooping Cough .....          | 1                 |                |
| Cerebro-Spinal Fever .....    | 1                 |                |
| Furuncle Face.....            | 1                 |                |
| Tuberculous Meningitis .....  | 2                 |                |
| Premature Birth .....         | 1                 |                |
| Septic Wound of Scalp .....   | 1                 |                |
| Endocarditis .....            | 1                 |                |
| Influenzal Pneumonia .....    | 1                 |                |
| Broncho-Pneumonia .....       | 1                 |                |
| Foreign Body in R. bronchus . | 1                 |                |
| Septic Throat .....           | 1                 |                |
| Bronchitis .....              | 1                 |                |
| Acute Pemphigus Neonatorum    | 2                 |                |
| Mixed Diseases .....          | 10                |                |
|                               | <hr/> 139         |                |

The fatality rates are worked out on the number of patients discharged. The average stay in hospital for all fatal cases, excepting advanced tuberculosis, was 11.19 days.

The number of cases discharged well in 1929 was as follows :—

| Disease.                    | Number.    |
|-----------------------------|------------|
| Scarlet Fever .....         | 734        |
| Diphtheria.....             | 530        |
| Measles .....               | 22         |
| Enteric Fever.....          | 8          |
| Erysipelas .....            | 89         |
| Puerperal Fever.....        | 24         |
| Advanced Tuberculosis ..... | 196        |
| Other Diseases .....        | 301        |
| Mixed Infections .....      | 54         |
|                             | <hr/> 1958 |



The average stay in hospital for all cases discharged well during 1929 was : for Scarlet Fever 40.04 days ; for diphtheria 46.46 ; for mixed diseases 54.51 ; for measles 22.68 ; for enteric fever 66.62 ; for erysipelas 28.98 ; for puerperal fever 42.87 ; for tuberculosis 75.93 ; for " other diseases " 25.09.

The daily average number of patients in hospital in 1929 was 249.1, as compared with 230.4 in 1928, and with 191.26, the daily average of numbers in the 5 years ended December 31st., 1928.

There were remaining in hospital on December 31st., 1929, 261 cases, as compared with 228 last year. The cases remaining were, scarlet fever 73, mixed 7, measles 2, diphtheria 82, erysipelas 10, puerperal fever 2, tuberculosis 62, other diseases 23.

47 of the remaining cases were from out-districts as compared with 46 last year.

#### DETAILED INFORMATION ABOUT SOME DISEASES.

##### Scarlet Fever,

The number of cases of this disease admitted in 1929 was 707, as against 893 in 1928. 795 cases were certified as having scarlet fever, but in 114 cases the diagnosis had to be revised ; in addition, 25 cases certified as diphtheria and one case of mixed infection proved to be scarlet fever. 735 cases were discharged well during the year, as against 880 last year. There were two deaths

from this disease, giving a 0.26 % fatality rate. The details of the two fatal cases were as follows:—

Both were cases of septic scarlet fever: one, a child  $5\frac{1}{2}$  years, was in for 16 days and died from septic intoxication, the other, a boy aged  $8\frac{3}{4}$  years, developed broncho-pneumonia, empyema and peritonitis. He was in hospital for 26 days.

The type of the disease was mild. Scarlatinal anti-toxin was given intramuscularly in 5—10 c.c. doses to all but the very mild cases. The more important complications were as follows:—

|                           | Number. | Percentage of<br>Discharged Cases. |
|---------------------------|---------|------------------------------------|
| Adenitis and Abscess (5)  | 147 ..  | 20.00                              |
| Arthritis .....           | 7 ..    | 0.95                               |
| Albuminuria .....         | 24 ..   | 3.26                               |
| Otitis Media .....        | 58 ..   | 7.89                               |
| Rhinitis and Rhinorrhoea. | 129 ..  | 17.50                              |
| Relapse .....             | 13 ..   | 1.76                               |

Other complications were as follows — Acne 1; bronchitis 16; burns 2; boils 2; bullous dermatitis 1; conjunctivitis 3; catarrhal jaundice 1; chorea 1; coryza 1; delirium 1; dermatitis 2; furunculosis 1; glycosuria 1; herpes zoster 1; herpes 1; herpes labialis 2; impetigo 20; marginal blepharitis 1; nephritis 1; peritonsillar abscess 5; peridental abscess 3; paronychia 9; phimosis 1; rheumatism 6; serum rash 29; septic toe 1; scald: cheek 1; face 1; sores, mouth 1; systolic bruit 1; tonsillitis 8; torticollis 1; vaginal discharge 1.

17 cases developed another infection :—chicken pox 7, nasal diphtheria 3, whooping cough 7.

The average stay in hospital for all cases discharged well was 40.04 days, and for the two fatal cases 21 days.

The following table indicates the period of residence of the 718 cases of scarlet fever, uncomplicated with another disease, who were discharged well in 1929 :—

| Week of discharge.              | Number of days in residence when discharged. |    |    |    |    |    |    | Number of cases in each day. |    |    |    |    |    |    | No. of cases in each week. |
|---------------------------------|----------------------------------------------|----|----|----|----|----|----|------------------------------|----|----|----|----|----|----|----------------------------|
| Under fourth . . . . .          |                                              |    |    |    |    |    |    |                              |    |    |    |    |    |    | 3                          |
| Fourth . . . . .                | 22                                           | 23 | 24 | 25 | 26 | 27 | 28 | 2                            | 2  | 2  | 1  | —  | 7  | 18 | 32                         |
| Fifth . . . . .                 | 29                                           | 30 | 31 | 32 | 33 | 34 | 35 | 37                           | 41 | 66 | 49 | 75 | 47 | 52 | 367                        |
| Sixth . . . . .                 | 36                                           | 37 | 38 | 39 | 40 | 41 | 42 | 45                           | 40 | 35 | 15 | 19 | 9  | 14 | 177                        |
| Seventh . . . . .               | 43                                           | 44 | 45 | 46 | 47 | 48 | 49 | 7                            | 12 | 13 | 6  | 8  | 5  | 5  | 56                         |
| Eighth . . . . .                | 50                                           | 51 | 52 | 53 | 54 | 55 | 56 | 5                            | 4  | 2  | 3  | 2  | 5  | 3  | 24                         |
| Ninth . . . . .                 | 57                                           | 58 | 59 | 60 | 61 | 62 | 63 | —                            | 2  | 6  | —  | 2  | —  | 3  | 13                         |
| Tenth . . . . .                 | 64                                           | 65 | 66 | 67 | 68 | 69 | 70 | 1                            | 6  | 2  | 1  | 1  | —  | 1  | 12                         |
| Over Tenth . . . . .            |                                              |    |    |    |    |    |    |                              |    |    |    |    |    |    | 34                         |
| Total Number of Cases . . . . . |                                              |    |    |    |    |    |    |                              |    |    |    |    |    |    | 718                        |

RETURN CASES :—13 cases were reported to have been infected by cases returned from hospital.

SCHICK TEST IN SCARLET FEVER AND OTHER DISEASES.

The following table shows the age distribution of patients suffering from scarlet fever and other diseases who underwent the Schick Test :—

|        | Age Periods. |   |   |   |    |    |    |    |    |    |         | Total. |
|--------|--------------|---|---|---|----|----|----|----|----|----|---------|--------|
|        | 1            | 2 | 3 | 4 | 5  | 6  | 7  | 8  | 9  | 10 | over 10 |        |
| + ve   | 3            | 5 | 5 | 5 | 9  | 7  | 8  | 3  | 8  | 5  | 8       | 66     |
| —ve    | 1            | 2 | 4 | 3 | 10 | 7  | 10 | 9  | 6  | 3  | 21      | 76     |
| Totals | 4            | 7 | 9 | 8 | 19 | 14 | 18 | 12 | 14 | 8  | 29      | 142    |

Of the 66 susceptibles 38 were immunised with Toxoid. (3 doses : 0.5 c.c., 1 c.c. & 1.5 c.c.)



### Diphtheria.

The number of admissions, of this disease greatly exceeded that of last year, 367, and the average for five years 1923-27, 332.0. 606 cases were admitted during the year and 40 remained from last year; of these 530 were discharged well, 36 died, and 80 remained in hospital at the end of the year. 805 cases were admitted certified as diphtheria, in 202 cases the diagnosis had to be revised, and, in addition, 3 cases sent in as scarlet fever proved to be diphtheria. The disease was also of a more malignant type, as shown by the larger proportion of severe cases and the increased fatality rate (6.4%,) this last in spite of a larger dosage of antitoxin and a greater number of instances in which it was administered intravenously. In a few of the very worst cases some of the antitoxin was also given intrathecally.

#### TYPE OF DISEASE.

Of the discharged cases, 421 were faucial, 41 laryngeal, 30 nasal; 1 nasal and laryngeal; 11 faucial and nasal; and 18 faucial and laryngeal. There were also eight cases of bacteriological diphtheria.

#### Faucial Diphtheria.

In 446 cases, including 25 fatal cases, the faucial region of the throat was affected.

MILD.—216 of the cases were mild, the deposit on the throat being localised to the tonsils, with little or no toxæmia. The average amount of serum given was 8,351 units. All these mild cases made a complete recovery. 14 cases had antitoxin before admission.

COMPLICATIONS AND SEQUELAE. — Adenitis 27, adenitis and albuminuria 1, adenitis and haematuria 1, adenitis and carrier 2, adenitis and cardiac arrhythmia 2, adenitis and otorrhoea 1, broncha-pneumonia 1, blepharitis 1, adenitis, otorrhoea and palatal paresis 1, coryza 1, cardiac arrhythmia and carrier 1, carrier 5, cardiac arrhythmia 4, impetigo (scalp), carrier and adenitis 1, otorrhoea 3, palatal paresis 1, otorrhoea 1, vaginal discharge, impetigo and paronychia 1.

3 cases developed chicken pox.

1 case developed scarlet fever.

1 case developed whooping cough.

MODERATE.—In 166 cases the membrane was more extensive, and was accompanied by toxæmia. The average amount of serum given was 16,771 units. 16 cases had antitoxin before admission. There were no deaths amongst this group, all cases recovering completely.

COMPLICATIONS AND SEQUELAE. — Adenitis 43, adenitis and lower limb paresis 1, albuminuria and adenitis 3, albuminuria 2, adenitis, albuminuria and ocular paresis 1, adenitis, cardiac arrhythmia, abscess (lip) and styne 1, adenitis, albuminuria and otorrhoea 1, adenitis, otorrhoea and cardiac arrhythmia 1, adenitis, albuminuria and cardiac arrhythmia 2, adenitis and cardiac arrhythmia 3, adenitis and palatal paresis 1, adenitis, rhinorrhoea and tonsillitis 1, adenitis, otorrhoea, incision and drainage 1, adenitis, rhinorrhoea and enteritis 1, adenitis and otorrhoea 2, carrier 1, cardiac arrhythmia 3, impetigo 2, influenzal cold 1, otorrhoea 2,



otorrhoea and palatal paresis 1, palatal paralysis 3, palatal paralysis and dermatitis 1, palatal, ocular and pharyngeal paralysis 1, rhinitis 1, tonsillitis 1.

SEVERE.—64 cases including 25 fatal ones, were of the severe type. The average amount of serum given was 69,641 units. 3 cases received antitoxin before admission, including 2 of the fatal ones.

COMPLICATIONS AND SEQUELAE.—Adenitis 4, adenitis, albuminuria 1, albuminuria, adenitis, palatal paresis, cycloplegia and strabismus 1, adenitis and lower limb paresis 1, adenitis and palatal paresis 2, adenitis, rhinitis and albuminuria 1, adenitis and cardiac arrhythmia 2, adenitis, albuminuria, abscess, incision, otorrhoea and palatal paresis 1, adenitis, cardiac arrhythmia and palatal paralysis 1, adenitis, cardiac arrhythmia, hordeolum and abscess 1, adenitis, palatal paresis and cardiac arrhythmia 1, adenitis, palatal paresis, cardiac arrhythmia and carrier 1, adenitis, tonsillitis and palatal paralysis 1, adenitis, incision and drainage 1, adenitis, albuminuria otorrhoea, haematuria, oedema, cardiac arrhythmia, ocular and pharyngeal paralysis, palatal paresis 1, cardiac arrhythmia 2, cycloplegia 1, cycloplegia and palatal paresis 1, cardiac arrhythmia, cycloplegia, adenitis and pharyngeal paralysis 1, myocarditis 1, otorrhoea 1, palatal and pharyngeal paralysis 1, palatal paresis 3, palatal paresis and cardiac arrhythmia 1, palatal paresis and strabismus 1, rhinitis and adenitis 1, rhinitis, adenitis, otorrhoea and palatal paresis 1, palatal and ocular paralysis 1, ocular paralysis 1.



COMPLICATIONS AND SEQUELAE OF FATAL CASES.—Circulatory failure 16, palatal paralysis and circulatory failure 1, palatal and pharyngeal paralysis and circulatory failure 1, palatal, pharyngeal and diaphragmatic paralysis 1, adenitis and circulatory failure 4, adenitis, palatal, pharyngeal and diaphragmatic paralysis 1, adenitis, palatal paralysis and circulatory failure 1.

### **Laryngeal Diphtheria.**

In 42 cases, including 1 fatal one, the larynx was involved.

MILD.—In 22 cases the laryngeal obstruction was slight. The average amount of serum given was 12,364 units. 3 cases received antitoxin before admission.

COMPLICATION AND SEQUELAE.—Adenitis 1.

MODERATE.—In nine cases the laryngeal obstruction was moderately severe. The average amount of serum given was 22,222 units.

COMPLICATIONS AND SEQUELAE.—Nil.

SEVERE.—11 cases, including 1 fatal one, the obstruction to the breathing was severe. 7 cases required tracheotomy. The average amount of antitoxin was 24,800 units. Tracheotomy gave only temporary relief in one fatal case, the membrane having extended too far.

COMPLICATION AND SEQUELAE.—Bronchitis 1.

### **Faucial and Laryngeal Diphtheria.**

The fauces and larynx were involved in 27 cases, including 9 deaths, and one of these received antitoxin before admission to the hospital.

4 cases were mild, 11 moderate, and 12 severe in type. The average amount of serum given was: For the mild cases 14,000 units, for the 11 moderate 32,727 units, for the 3 recovered severe 69,333 units, and for the 9 fatal cases 25,333 units. 5 cases, including 4 fatal ones, required tracheotomy and 1 case was intubated.

COMPLICATION AND SEQUELAE—Mild.—Adenitis 2.

MODERATE.—Adenitis and otorrhoea 2, adenitis 3, impetigo and palatal paralysis 1.

SEVERE.—Palatal, pharyngeal and ocular paralysis 1, adenitis 1, albuminuria, convulsions, palatal and pharyngeal paralysis 1.

Particulars of the 9 fatal cases, 5 had circulatory failure, 1 of these was intubated, 1 developed broncho-pneumonia after a tracheotomy. 1 was moribund on admission and died before the trachea could be opened. In 2 cases tracheotomy only afforded temporary relief, membrane causing the obstruction too low down.

### Nasal Diphtheria.

There were 30 cases of nasal diphtheria and the average amount of serum given was: for the 28 mild cases 6,857 units, and for the 2 moderate cases 16,000 units.

COMPLICATION AND SEQUELAE—Mild.—Adenitis and carrier 1, adenitis 2, paronychia 1, tonsillitis 1, furunculosis and abscess 1.

MODERATE.—Nil.

Faucial and Nasal Diphtheria.

For the 6 mild cases of this type of diphtheria the average amount of serum given was 10,000 units, for the 3 moderate 36,000 units, and for the 2 severe 88,000 units. The 1 fatal case received 32,000 units.

COMPLICATIONS AND SEQUELAE — Mild— Adenitis, relapse 1.

MODERATE.—Adenitis 1.

SEVERE.—Adenitis 1, palatal paralysis and circulatory failure 1.

Nasal and Laryngeal Diphtheria.

The 1 moderate case of this type, which was discharged well, received 24,000 units.

The following table summarises the sites of membrane in the total clinical cases discharged :—

| SITE OF MEMBRANE.       | MILD.     |      | MODERATE. |      | SEVERE.   |      | TOTAL.    |      |
|-------------------------|-----------|------|-----------|------|-----------|------|-----------|------|
|                         | Recovered | Died | Recovered | Died | Recovered | Died | Recovered | Died |
| Faucial .....           | 216       | ..   | 166       | ..   | 39        | 25   | 421       | 25   |
| Laryngeal and Faucial . | 4         | ..   | 11        | ..   | 3         | 9    | 18        | 9    |
| Laryngeal .....         | 22        | ..   | 9         | ..   | 10        | 1    | 41        | 1    |
| Nasal .....             | 28        | ..   | 2         | ..   | ..        | ..   | 30        | ..   |
| Nasal and Laryngeal ..  | ..        | ..   | 1         | ..   | ..        | ..   | 1         | ..   |
| Faucial and Nasal ....  | 6         | ..   | 3         | ..   | 2         | 1    | 11        | 1    |
| Totals .....            | 276       | ..   | 192       | ..   | 54        | 36   | 522       | 36   |



DIPHThERITIC PARALYSIS.—46, or 8.7% of the clinical cases discharged had paralysis in one form or another whilst in hospital.

COMPLICATIONS.—225, or 42.4% of the recovered cases developed one or more complications. This figure does not include serum rashes.

FATALITY RATE.—36, or 6.4% of the clinical cases were fatal.

ANTITOXIN.—37, or 6.9% of the cases discharged had antitoxin before admission to the hospital, and 2 of the fatal cases.

The average amount of serum given in hospital in the recovered cases was 21,073 units, and 61,277 in the fatal cases. In addition 59 cases had part of the antitoxin injected intravenously. 55 cases developed a serum rash.

### Dick Test in Diphtheria.

The Dick test was performed in 508 cases of diphtheria, 296 of these were positive and 212 were negative. The positive reactors were inoculated with scarlet fever prophylactic (500, 2000, 6000, 15,000 skin test doses). One case only of scarlet fever occurred amongst diphtheria patients during the year.

The following table shows the age periods of the Dick tested patients :—

Age Periods of Diphtheria Cases.

| Years.....    | Under. |    |    |    |    |    |    |    |    |    |    |     | Over. | Totals. |
|---------------|--------|----|----|----|----|----|----|----|----|----|----|-----|-------|---------|
|               | 1      | 1  | 2  | 3  | 4  | 5  | 6  | 7  | 8  | 9  | 10 | 10  |       |         |
| Positive..... | 3      | 18 | 27 | 37 | 27 | 30 | 39 | 28 | 23 | 19 | 7  | 38  |       | 296     |
| Negative ...  |        | 1  | 4  | 10 | 13 | 13 | 17 | 28 | 14 | 31 | 9  | 72  |       | 212     |
| Totals ..     | 3      | 19 | 31 | 47 | 40 | 43 | 56 | 56 | 37 | 50 | 16 | 110 |       | 508     |

Enteric Fever.

19 cases were sent in under this diagnosis, but in 9 instances this had to be revised. 8 cases were discharged well.

COMPLICATIONS.—Bronchiectasis 1, hemiplegia 1, hæmorrhage 1, otorrhoea 1, thrombosis 1.

There were 2 fatal [cases, one of which died from broncho-pneumonia.

Puerperal Fever.

28 cases were admitted under this diagnosis, but one case proved to be pneumonia. Of the 31 cases under treatment, 24 were discharged, 5 died and 2 remained in hospital at the end of the year. The 24 discharged cases were classified as follows: Puerperal sepsis 23, puerperal septicaemia 1, and the five fatal ones as puerperal septicaemia.

THE COMPLICATIONS OF THE CASES DISCHARGED IN 1929 WERE.—Abscess (thigh) 1, albuminuria 3, cystitis 1,

dermatitus gestationis 1, mental derangement 1, mammary abscess 1, phlegmasia alba dolens 2, pleural effusion and otorrhoea 1.

One case developed erysipelas.

There were 18 babies admitted with their mothers.

### Erysipelas.

105 cases were admitted as erysipelas during the year, but in 9 cases the diagnosis had to be revised. 89 cases were discharged well, 3 had fatal terminations, and 10 were in hospital at the end of the year.

COMPLICATIONS OF THE FATAL CASES.—Septicaemia 1, relapse, bronchitis and septicaemia 1, cellulitis, toxæmia 1.

COMPLICATIONS OF THE DISCHARGED CASES.—Albuminuria 2, abscess and incision 7, adenitis 1, bronchitis 2, biliary colic 1, cellulitis 3, conjunctivitis 1, confinement 1, glycosuria 1, nephritis 1, otorrhoea 1, relapse 3, sinusitis maxillary 1, tenosynovitis (foot) 1.

STAFF.—On December 31st, 1929, the resident staff of the sanatorium consisted of the following:—

|                                |   |
|--------------------------------|---|
| Medical Superintendent .....   | 1 |
| Assistant Resident M.O.'S..... | 2 |
| City Bacteriologist .....,...  | 1 |
| Matron .....                   | 1 |
| Assistant Matron .....         | 1 |
| Stores Sister .....            | 1 |



STAFF--*Continued.*

|                           |       |
|---------------------------|-------|
| Sister Tutor .....        | 1     |
| Night Sister .....        | 1     |
| Sisters .....             | 6     |
| Staff Nurses .....        | 16    |
| Assistant Nurses .....    | 2     |
| Probationers .....        | 38    |
| Cook .....                | 1     |
| Maids .....               | 42    |
| Laundress .....           | 1     |
| Lodge Porters .....       | 2     |
|                           | <hr/> |
| Total Resident Staff..... | 117   |
|                           | <hr/> |

The Non-Resident Staff consisted of:—

|                                |       |
|--------------------------------|-------|
| Visiting Aural Surgeon .....   | 1     |
| Clerk .....                    | 1     |
| Junior Clerk .....             | 1     |
| Engineer .....                 | 1     |
| Plumber.....                   | 1     |
| Firemen .....                  | 3     |
| Gardener .....                 | 1     |
| Assistant Gardeners .....      | 2     |
| Porters .....                  | 5     |
| Seamstresses .....             | 2     |
| Assistant Seamstress.....      | 1     |
| Head Laundress .....           | 1     |
| Laundresses .....              | 11    |
| Cleaners .....                 | 2     |
|                                | <hr/> |
| Total Non-Resident Staff ..... | 33    |
|                                | <hr/> |

HEALTH OF STAFF.—The following were the illnesses : abscess 2, anaemia 1, appendicitis 1, bronchitis 1, biliary colic 1, coryza 3, carbuncle 1, diphtheria 3, dysmenorrhoea 1, enteritis 1, erysipelas 1, heart disease 1, influenza 5, influenzal cold 3, laryngitis 1, otitis media 2, phosphaturia 1, rubella 1, sore arm and thigh 1, serum disease 1, septic hand 1, sore throat 1, tonsillitis 7, whitlow 3.

The staff, both nurses and maids, have been tested by the Schick and Dick tests and, if positive, immunized against diphtheria and scarlet fever.

70 had the Schick test done and of 22 positives 17 were inoculated with Toxoid. 13 of these were retested subsequently and all 13 gave a negative Schick.

64 had the Dick test done and of 11 positives 9 were immunized with Scarlatinal Toxin. 7 were afterwards tested and all were found to have become negative.

Three cases of diphtheria occurred in probationer nurses and the following are the details :—

One nurse developed diphtheria a few days after joining the staff and on the day she was Schick tested, the test was positive. The second nurse had been tested and immunized previously, also a retest had been found to be negative although at the time unsuccessful was put as a remark in the record book. She was found to be still positive when tested again at the beginning of the attack, which proved only a mild one. A third nurse was Schick positive and was given three doses of Toxoid

but had not been retested when two months after the last dose, she had a sore nose which proved on culture to be diphtheritic. They all made good recoveries.

The hospital is a recognized training school for fevers, and lectures are given in preparation for the State Examinations in Anatomy, Physiology, Hygiene and the Theory and Practice of Fevers and Fever Nursing. During the year 8 nurses passed the preliminary and 8 the final state examination.

I wish here to express my appreciation of the fine work done by the whole staff during the past year, and to compliment especially the Matron, Mrs. Rowan, on the excellence of her management.

#### APPOINTMENT OF A SECOND MEDICAL OFFICER.

The work of this hospital has greatly increased both as regards quantity and quality of late years, and I found it necessary to recommend to the hospital sub-committee the appointment of a second assistant medical officer. The additional Medical Officer was appointed in June. The new appointment makes it possible to do away with the engagement of a locum each summer during the holidays, also it has allowed a further increase in the amount of work done. In addition, it has made it possible for the medical superintendent to undertake work for the Health Department: such as the new campaign for the immunization of children against diphtheria, upon which a special Report has been made (see p.p. 134 to 136,) as well as making it possible for the Medical Superintendent to see cases for the M.O.H. referred to him for diagnosis by general practitioners.



### Operating Theatre.

The number of operations in the theatre was 38, all requiring general anaesthesia; minor operations are not included; in addition, there were a number of incisions done on the wards, some of which required gas anaesthesia, but most only a local one.

Particulars of the operations in the theatre are:

| Disease and     | Complication.     | Operation                    | Recov. | Died | Total |
|-----------------|-------------------|------------------------------|--------|------|-------|
| Scarlet Fever   | Enlarged Tonsils  | Tonsillectomy and            |        |      |       |
|                 |                   | Adenoidectomy                | 5      | —    | 5     |
| „ „             | Otitis Media      | Tonsillectomy and            |        |      |       |
|                 |                   | Adenoidectomy                | 16     | —    | 16    |
| „ „             | Otitis Media and  | Schwartzes Oper :            |        |      |       |
|                 | Acute Mastoiditis | Tonsillectomy and            |        |      |       |
|                 |                   | Adenoidectomy                | 2      | —    | 2     |
| „ „             | Rhinitis          | Tonsillectomy and            |        |      |       |
|                 |                   | Adenoidectomy                | 1      | —    | 1     |
| „ „             | Frontal sinus     | Incision                     | 1      | —    | 1     |
|                 | empyema           |                              |        |      |       |
| „ „             | „ „               | Adenoidectomy and explora-   |        |      |       |
|                 |                   | tion of maxillary antrum     | 1      | —    | 1     |
| „ „             | „ „               | Turbinectomy                 | 1      | —    | 1     |
| „ „             | „ „               | Exploration of frontal sinus | 1      | —    | 1     |
| Whooping Cough  | Otitis Media      | Adenoidectomy                | 1      | —    | 1     |
| Subperiosteal   |                   | Incisions                    | 1      | —    | 1     |
| Whitlow         |                   |                              |        |      |       |
| Diphtheria      | Otitis Media      | Tonsillectomy and            |        |      |       |
|                 |                   | Adenoidectomy                | 5      | —    | 5     |
| Diphtheria      | Enlarged Tonsils  | Tonsillectomy and            |        |      |       |
|                 |                   | Adenoidectomy                | 1      | —    | 1     |
| „               | Acute Mastoiditis | Schwartzes Oper :            |        |      |       |
|                 |                   | Tonsillectomy and            |        |      |       |
|                 |                   | Adenoidectomy                | 1      | —    | 1     |
| Tonsillitis and | Otitis Media      | Tonsillectomy and            |        |      |       |
|                 |                   | Adenoidectomy                | 1      | —    | 1     |
|                 |                   |                              | 38     | —    | 38    |

### Bed Isolation Ward.

This ward contains 16 beds. It was converted into a Bed Isolation ward and fully equipped for this work; it was ready for use in January. Each patient is nursed separately from the others and nothing which has been in contact with the patient or anything from his bed

is allowed to touch any other patient or bed, unless it has been sterilized. This sterilization is done by steam whenever possible or by disinfection with Izal. Nurses have to wear separate gowns and scrub their hands every time they attend a patient.

Free ventilation was also insisted upon. There were no cases of cross-infection during the year. All varieties of diseases were admitted. The ward was busy all through the year, the demand for isolation being always great.

165 cases were admitted during the year.

The following is a table of the diseases:—

| Sent in as          |    | Diagnosis after observation.     |    |
|---------------------|----|----------------------------------|----|
| Scarlet Fever ..... | 67 | Scarlet Fever....                | 16 |
|                     |    | Scarlet Fever and Diphtheria ... | 4  |
|                     |    | Scarlet Fever and Measles .....  | 1  |
|                     |    | Scarlet Fever and Rubella .....  | 1  |
|                     |    | Diphtheria .....                 | 2  |
|                     |    | Measles .....                    | 4  |
|                     |    | Rubella .....                    | 11 |
|                     |    | Influenza .....                  | 4  |
|                     |    | Acute appendicitis               | 1  |
|                     |    | Bronchitis.....                  | 4  |
|                     |    | Coryza.....                      | 1  |
|                     |    | Erythema .....                   | 3  |
|                     |    | Impetiginous Eczema .....        | 1  |
|                     |    | Nil .....                        | 2  |
|                     |    | Pneumonia .....                  | 1  |
|                     |    | Sore Throat .....                | 3  |
|                     |    | Tonsillitis .....                | 8  |

| Sent in as                                   |           | Diagnosis after<br>observation.                              |           |
|----------------------------------------------|-----------|--------------------------------------------------------------|-----------|
| Diphtheria . . . . .                         | 48        | Diphtheria . . . . .                                         | 14        |
|                                              |           | Diphtheria and<br>Measles . . . . .                          | 1         |
|                                              |           | Diphtheria and<br>Chicken Pox . . . . .                      | 1         |
|                                              |           | Diphtheria and<br>Scarlet Fever . . . . .                    | 2         |
|                                              |           | Scarlet Fever . . . . .                                      | 9         |
|                                              |           | Measles . . . . .                                            | 1         |
|                                              |           | Influenzal<br>Broncho-<br>Pneumonia . . . . .                | 2         |
|                                              |           | Adenitis . . . . .                                           | 1         |
|                                              |           | Bronchitis . . . . .                                         | 1         |
|                                              |           | Laryngitis . . . . .                                         | 2         |
|                                              |           | Septic Throat . . . . .                                      | 1         |
|                                              |           | Tonsillitis . . . . .                                        | 13        |
|                                              |           |                                                              | 48        |
| Diphtheria and Scarlet Fever . . . . .       | 1         | Diphtheria and<br>Scarlet Fever . . . . .                    | 1         |
| Diphtheria and Chicken Pox . . . . .         | 2         | Chicken Pox . . . . .                                        | 1         |
|                                              |           | Bronchitis . . . . .                                         | 1         |
| Diphtheria and Dermatitis . . . . .          | 1         | Diphtheria and<br>Dermatitis . . . . .                       | 1         |
| Diphtheria and Measles . . . . .             | 1         | Diphtheria and<br>Measles . . . . .                          | 1         |
| Diphtheria and Measles contact . . . . .     | 1         | Diphtheria and<br>Measles<br>Broncho-<br>Pneumonia . . . . . | 1         |
| Scarlet Fever and Measles contact . . . . .  | 1         | Scarlet Fever . . . . .                                      | 1         |
| Scarlet Fever and Chicken Pox . . . . .      | 4         | Scarlet Fever and<br>Chicken Pox . . . . .                   | 1         |
|                                              |           | Chicken Pox . . . . .                                        | 3         |
| Measles and Pulmonary Tuberculosis . . . . . | 1         | Measles and<br>Broncho-<br>Pneumonia . . . . .               | 1         |
| Measles . . . . .                            | 3         | Measles . . . . .                                            | 3         |
| Enteric Fever . . . . .                      | 7         | Intestinal<br>Toxaemia . . . . .                             | 1         |
|                                              |           | Food Poisoning . . . . .                                     | 1         |
|                                              |           | Influenza . . . . .                                          | 1         |
|                                              |           | Typhoid Fever . . . . .                                      | 4         |
| <i>Total carried forward</i>                 | <i>22</i> |                                                              | <i>22</i> |



| Sent in as                        |                              | Diagnosis after<br>observation.                                   |                |
|-----------------------------------|------------------------------|-------------------------------------------------------------------|----------------|
|                                   | <i>Total brought forward</i> |                                                                   |                |
|                                   | 22                           |                                                                   | 22             |
| Mumps .....                       | 1                            | Mumps .....                                                       | 1              |
| Chicken Pox .....                 | 1                            | Chicken Pox.....                                                  | 1              |
| Erysipelas .....                  | 7                            | Erysipelas.....                                                   | 7              |
| Rubella .....                     | 2                            | Rubella .....                                                     | 2              |
| Pemphigus Neonatorum .....        | 3                            | Acute Pemphigus<br>Neonatorum...                                  | 3              |
| Cerebro-Spinal Meningitis.....    | 1                            | Cerebro-Spinal<br>Meningitis.....                                 | 1              |
| Meningitis .....                  | 1                            | Lobar Pneumonia                                                   | 1              |
| Typhoid Fever or Meningitis ..... | 1                            | Pneumonia and<br>localised Pneu-<br>mocecal Men-<br>ingitis ..... | 1              |
| Influenza .....                   | 4                            | Influenza .....                                                   | 4              |
| Acute Poliomyelitis.....          | 1                            | Influenza .....                                                   | 1              |
| Coryza .....                      | 1                            | Coryza.....                                                       | 1              |
| Laryngitis .....                  | 1                            | Laryngitis.....                                                   | 1              |
| Pneumonia .....                   | 3                            | Empyema .....                                                     | 1              |
|                                   |                              | Lobar Pneumonia                                                   | 1              |
|                                   |                              | Influenzal Pneu-<br>monia .....                                   | 1              |
| Serum Disease .....               | 1                            | Serum Disease ...                                                 | 1              |
|                                   | <hr/> 50 <hr/>               |                                                                   | <hr/> 50 <hr/> |

It will be seen from this variety of diseases treated how useful the ward has been.

## Report as to the Work of the Visiting Aural Surgeon to the Hospital.

The work this year has shown a marked proportionate increase compared with that of the second half of last year, with which the last report was concerned. Not only has a more careful watch been made for the occurrence of ear trouble, but a number of cases of "Pyrexia of unknown origin" have been examined, and have shewn ear trouble to be the factor concerned. Moreover there is beginning to be seen an obvious tendency to send in fever cases requiring surgical ear treatment now that it is known that such treatment is available.

EAR CASES.—In general the same lines of treatment were followed as previously, except that more and more resort has been made to early paracentesis of the drum. In stubborn cases removal of tonsils and adenoids resulted in cure of the middle ear trouble in a number of cases, though it was found possible to deal with as many throats as required treatment.

A considerable setback to details of results of treatment resulted from the admission of a large number of patients who had Otitis Media on admission, frequently of long duration. It is a well-known fact that middle ear trouble, dealt with within the first few weeks of its inception, speedily yields to treatment, whereas old standing trouble which has been consistently neglected gives very poor results and is a fertile source of spread of disease.

Arrangements made for the following up of cases, where it was thought necessary, at the Education Committee's clinic were made use of to the full by parents though there was less use made of the Welfare Department for those of pre-school age, and this neglect is especially to be deplored, since it is in quite young children that Tuberculosis of the middle ear occurs with its very high mortality.

Most of the mastoid operations were performed on patients who were admitted with mastoiditis and it was found that in the cases developing Otitis Media after admission, early drum incision in suitable cases prevented mastoid involvement. Good results were obtained in most of these cases of mastoiditis.

THROAT CASES.—Tonsil and adenoid disease is so common in the hospital that it is quite out of the question to deal with it except when it is resulting in ear trouble or where diphtheria bacilli linger in the throat. Many requests were made by parents for operative treatment of the tonsils and adenoids and in a few very bad cases this was carried out.

A number of cases of tuberculous laryngitis were treated and in some cases information (derived from examination of the larynx) as to the patients' outlook was obtained.

NASAL CASES.—A varied group was dealt with under this heading, the majority being cases of nasal discharge, often with coexistent ear disease, both being due to adenoids.



One case of disease of the frontal sinus was dealt with surgically with good result.

In conclusion, my thanks are due to the Medical Superintendent and his staff for their co-operation in the work.

## 1929.

|                                                                                                                                              |     |
|----------------------------------------------------------------------------------------------------------------------------------------------|-----|
| Total number of examinations made.....                                                                                                       | 889 |
| Tonsil and adenoid operations.....                                                                                                           | 32  |
| Ear operations—                                                                                                                              |     |
| Mastoid operations (Schwartz type).....                                                                                                      | 3   |
| Incision of drum of ear.....                                                                                                                 | 12  |
| Removal of aural polypus.....                                                                                                                | 1   |
| Operation on frontal sinus. ....                                                                                                             | 1   |
| Cases of suppurative otitis media due to scarlet fever ....                                                                                  | 69  |
| .. non- .. .. .                                                                                                                              | 3   |
| .. suppurative .. .. diphtheria.....                                                                                                         | 40  |
| .. non- .. .. .                                                                                                                              | 3   |
| .. suppurative .. .. various causes,<br>including measles, pneumonia, erysipelas, whooping cough,<br>puerperal fever, and typhoid fever..... | 16  |
| Ear, nose and throat cases, medical and nursing staff.....                                                                                   | 5   |

It is to be noted that a number of patients came into hospital already having discharge from the ear, due to former throat and nose trouble or measles (a fever which causes more ear disease even than scarlatina). Of those contracting ear trouble with discharge during the illness for which they were admitted to hospital, 85% left hospital with intact drums, about 8% with perforated drums but dry ears, and the remainder with some discharge from the ear.

Appended are the usual Statistical Tables.

TABULATION OF CASES WHICH HAVE BEEN CLASSIFIED  
AS "OTHER DISEASES."

|                              |    |                               |     |
|------------------------------|----|-------------------------------|-----|
| Adenitis .....               | 2  | Miliary Tuberculosis.....     | 1   |
| Abscess .....                | 3  | Mitral Heart Disease .....    | 1   |
| Appendicitis .....           | 2  | Mumps .....                   | 1   |
| Anaemia .....                | 1  | Nil .....                     | 2   |
| Abscess. Peritonsillar ..... | 2  | Otorrhoea.....                | 5   |
| Bronchitis .....             | 13 | Observation .....             | 1   |
| Broncho-Pneumonia.....       | 3  | Otitis Media .....            | 2   |
| Burns .....                  | 2  | Pneumonia.....                | 1   |
| Biliary Colic .....          | 1  | Pneumonia. Lobar .....        | 2   |
| Cellulitis .....             | 1  | Pneumonia. Influenzal.....    | 7   |
| Cerebro-Spinal Fever.....    | 1  | Poliomyelitis .....           | 1   |
| Chicken Pox .....            | 7  | Premature Birth.....          | 1   |
| Coryza .....                 | 4  | Phosphaturia .....            | 1   |
| Conjunctivitis .....         | 1  | Pemphigus Neonatorum ....     | 3   |
| Carbuncle .....              | 1  | Post Diphtheritic Paralysis.. | 1   |
| Carcinoma Rectum.....        | 1  | Rhinitis .....                | 2   |
| Dermatitis .....             | 2  | Rubella.....                  | 19  |
| Dysmenorrhoea .....          | 1  | Septic Hand.....              | 1   |
| Eczema.....                  | 3  | Septic Wound of Scalp.....    | 1   |
| Empyema .....                | 1  | Septic Throat.....            | 3   |
| Endocaditis .....            | 1  | Sore Throat.....              | 21  |
| Erythema.....                | 6  | Sore Arm and Thigh.....       | 1   |
| Encephalitis Lethargica .... | 1  | Serum Disease.....            | 1   |
| Enteritis .....              | 1  | Syphilis .....                | 1   |
| Food Poisoning .....         | 1  | Tonsillitis .....             | 125 |
| Foreign Body.....            | 1  | T. B. Meningitis .....        | 2   |
| Furuncle. Face .....         | 1  | Trauma. Neck.....             | 1   |
| Gastritis .....              | 1  | Vincent's Angina.....         | 1   |
| Gastro-Enteritis .....       | 2  | Whooping Cough .....          | 4   |
| Influenza .....              | 16 | Whitlow .....                 | 3   |
| Impetigo .....               | 1  | With Mother.....              | 18  |
| Intestinal Toxaemia .....    | 1  |                               |     |
| Laryngitis .....             | 6  |                               | 326 |
| Laryngitis Stridulosa .....  | 1  |                               |     |

**TABLE I.**

STATEMENT OF THE NUMBER OF PATIENTS UNDER TREATMENT IN  
LADYWELL SANATORIUM IN 1929.

|                                                                                  | Males.              |                    | Females.            |                    | Totals |
|----------------------------------------------------------------------------------|---------------------|--------------------|---------------------|--------------------|--------|
|                                                                                  | Under<br>5<br>years | Over<br>5<br>years | Under<br>5<br>years | Over<br>5<br>years |        |
| I.—PATIENTS REMAINING IN HOS-<br>PITAL ON DECEMBER 31st, 1928,<br>AFFECTED WITH— |                     |                    |                     |                    |        |
| Scarlet Fever.....                                                               | 12                  | 33                 | 17                  | 42                 | 104    |
| Mixed Infections.....                                                            | 4                   | 1                  | 2                   | 4                  | 11     |
| Measles .....                                                                    | ..                  | ..                 | ..                  | ..                 | ..     |
| Enteric Fever .....                                                              | ..                  | ..                 | ..                  | ..                 | ..     |
| Diphtheria .....                                                                 | 6                   | 13                 | 5                   | 16                 | 40     |
| Erysipelas .....                                                                 | ..                  | 3                  | ..                  | 3                  | 6      |
| Puerperal Fever .....                                                            | ..                  | ..                 | ..                  | 4                  | 4      |
| Tuberculosis (Advanced) .....                                                    | ..                  | 30                 | ..                  | 19                 | 49     |
| Other Diseases .....                                                             | 5                   | 2                  | 4                   | 3                  | 14     |
| Totals .....                                                                     | 27                  | 82                 | 28                  | 91                 | 228    |
| II.—ADMITTED DURING THE YEAR<br>ENDED DECEMBER 31st, 1929,<br>AFFECTED WITH—     |                     |                    |                     |                    |        |
| Scarlet Fever.....                                                               | 81                  | 224                | 98                  | 304                | 707    |
| Mixed Infections.....                                                            | 13                  | 21                 | 13                  | 13                 | 60     |
| Measles .....                                                                    | 6                   | 5                  | 7                   | 6                  | 24     |
| Enteric Fever .....                                                              | ..                  | 6                  | ..                  | 4                  | 10     |
| Diphtheria .....                                                                 | 82                  | 188                | 92                  | 244                | 606    |
| Erysipelas.....                                                                  | 1                   | 36                 | 4                   | 55                 | 96     |
| Puerperal Fever .....                                                            | ..                  | ..                 | ..                  | 27                 | 27     |
| Tuberculosis (Advanced) .....                                                    | ..                  | 153                | ..                  | 121                | 274    |
| Other Diseases .....                                                             | 59                  | 77                 | 49                  | 141                | 326    |
| Totals .....                                                                     | 242                 | 710                | 263                 | 915                | 2130   |
| Total under treatment, 1929 .....                                                | 269                 | 792                | 291                 | 1006               | 2358   |
| III.—OF THE ABOVE THERE WERE<br>DISCHARGED, RECOVERED FROM—                      |                     |                    |                     |                    |        |
| Scarlet Fever.....                                                               | 81                  | 320                | 103                 | 320                | 734    |
| Mixed Infection .....                                                            | 12                  | 18                 | 12                  | 12                 | 54     |
| Measles .....                                                                    | 6                   | 5                  | 6                   | 5                  | 22     |
| Enteric Fever .....                                                              | ..                  | 5                  | ..                  | 3                  | 8      |
| Diphtheria .....                                                                 | 66                  | 165                | 78                  | 221                | 530    |
| Erysipelas.....                                                                  | 1                   | 34                 | 4                   | 50                 | 89     |
| Puerperal Fever .....                                                            | ..                  | ..                 | ..                  | 24                 | 24     |
| Tuberculosis (Advanced) .....                                                    | ..                  | 106                | ..                  | 90                 | 196    |
| Other Diseases .....                                                             | 51                  | 68                 | 49                  | 133                | 301    |
| Totals .....                                                                     | 217                 | 631                | 252                 | 858                | 1958   |



TABLE I—Continued.

## STATEMENT OF NUMBER OF PATIENTS—Continued.

|                                                                       | Males.              |                    | Females.            |                    | Totals |
|-----------------------------------------------------------------------|---------------------|--------------------|---------------------|--------------------|--------|
|                                                                       | Under<br>5<br>years | Over<br>5<br>years | Under<br>5<br>years | Over<br>5<br>years |        |
| IV.—DIED FROM—                                                        |                     |                    |                     |                    |        |
| Scarlet Fever.....                                                    | ..                  | 1                  | ..                  | 1                  | 2      |
| Mixed Infection .....                                                 | 3                   | 2                  | 3                   | 2                  | 10     |
| Measles .....                                                         | ..                  | ..                 | ..                  | ..                 | ..     |
| Enteric Fever .....                                                   | ..                  | 1                  | ..                  | 1                  | 2      |
| Diphtheria .....                                                      | 12                  | 6                  | 5                   | 13                 | 36     |
| Erysipelas .....                                                      | ..                  | 1                  | ..                  | 2                  | 3      |
| Puerperal Fever .....                                                 | ..                  | ..                 | ..                  | 5                  | 5      |
| Tuberculosis (Advanced) .....                                         | ..                  | 41                 | ..                  | 24                 | 65     |
| Other Diseases .....                                                  | 8                   | 6                  | 1                   | 1                  | 16     |
| Totals .....                                                          | 23                  | 58                 | 9                   | 49                 | 139    |
| V.—REMAINING IN HOSPITAL ON<br>DECEMBER 31st, 1929, AFFECTED<br>WITH— |                     |                    |                     |                    |        |
| Scarlet Fever.....                                                    | 12                  | 26                 | 12                  | 25                 | 75     |
| Mixed Infection .....                                                 | 2                   | 2                  | ..                  | 3                  | 7      |
| Measles .....                                                         | ..                  | ..                 | 1                   | 1                  | 2      |
| Enteric Fever .....                                                   | ..                  | ..                 | ..                  | ..                 | ..     |
| Diphtheria .....                                                      | 10                  | 30                 | 14                  | 26                 | 80     |
| Erysipelas .....                                                      | ..                  | 4                  | ..                  | 6                  | 10     |
| Puerperal Fever .....                                                 | ..                  | ..                 | ..                  | 2                  | 2      |
| Tuberculosis (Advanced) .....                                         | ..                  | 36                 | ..                  | 26                 | 62     |
| Other Diseases .....                                                  | 5                   | 5                  | 3                   | 10                 | 23     |
| Totals .....                                                          | 29                  | 103                | 30                  | 99                 | 261    |

TABLE II.

MONTHLY STATEMENT OF PATIENTS FOR THE YEAR ENDED DECEMBER 31ST, 1929; TOGETHER WITH A COMPARISON WITH THE YEAR 1928, AND WITH THE MEAN OF THE FIVE (5) AND FORTY-SIX (46) YEARS ENDED DECEMBER 31ST, 1928.

| Month.              | Admissions,<br>1929. | Admissions,<br>1928. | Mean of<br>Admissions,<br>5 years,<br>1924-1928. | Mean of<br>Admissions,<br>46 years,<br>1883-1928. | Daily Average<br>No. of Patients<br>in Hospital,<br>1929. | Daily Average<br>No. of Patients<br>in Hospital,<br>1928. | Mean of Daily<br>Average No. of<br>Patients in<br>Hospital, 5 yrs.,<br>1924-1928. | Mean of Daily<br>Average No. of<br>Patients in<br>Hospital, 46 yrs.,<br>1883-1928. |
|---------------------|----------------------|----------------------|--------------------------------------------------|---------------------------------------------------|-----------------------------------------------------------|-----------------------------------------------------------|-----------------------------------------------------------------------------------|------------------------------------------------------------------------------------|
| January . . . . .   | 209                  | 185                  | 131.8                                            | 115.2                                             | 237.6                                                     | 246.7                                                     | 185.9                                                                             | 139.8                                                                              |
| February . . . . .  | 139                  | 154                  | 117.6                                            | 94.8                                              | 252.0                                                     | 252.6                                                     | 192.4                                                                             | 131.1                                                                              |
| March . . . . .     | 168                  | 169                  | 126.2                                            | 100.4                                             | 233.2                                                     | 240.2                                                     | 191.2                                                                             | 122.8                                                                              |
| April . . . . .     | 162                  | 175                  | 117.2                                            | 97.8                                              | 230.4                                                     | 238.9                                                     | 190.4                                                                             | 116.4                                                                              |
| May . . . . .       | 186                  | 165                  | 117.8                                            | 99.1                                              | 235.0                                                     | 231.4                                                     | 174.0                                                                             | 114.5                                                                              |
| June . . . . .      | 156                  | 144                  | 114.4                                            | 98.9                                              | 246.5                                                     | 204.0                                                     | 163.9                                                                             | 110.8                                                                              |
| July . . . . .      | 162                  | 159                  | 124.4                                            | 107.7                                             | 234.8                                                     | 203.9                                                     | 166.2                                                                             | 121.0                                                                              |
| August . . . . .    | 145                  | 153                  | 115.6                                            | 106.2                                             | 235.7                                                     | 201.9                                                     | 165.8                                                                             | 122.8                                                                              |
| September . . . . . | 174                  | 174                  | 150.0                                            | 128.6                                             | 242.0                                                     | 218.6                                                     | 185.5                                                                             | 137.7                                                                              |
| October . . . . .   | 229                  | 217                  | 188.0                                            | 151.3                                             | 270.1                                                     | 242.4                                                     | 224.2                                                                             | 157.9                                                                              |
| November . . . . .  | 201                  | 150                  | 147.2                                            | 138.4                                             | 286.5                                                     | 255.5                                                     | 236.4                                                                             | 168.1                                                                              |
| December . . . . .  | 199                  | 152                  | 131.4                                            | 121.5                                             | 279.4                                                     | 228.7                                                     | 217.7                                                                             | 154.8                                                                              |
| Totals . . . . .    | 2130                 | 1995                 | ..                                               | ..                                                | ..                                                        | ..                                                        | ..                                                                                | ..                                                                                 |
| M'thly Av'ges.      | 177.5                | 166.2                | 131.8                                            | 113.3                                             | 249.8                                                     | 230.4                                                     | 191.1                                                                             | 133.6                                                                              |

TABLE III.

SHOWING THE NUMBER OF ADMISSIONS OF THE PRINCIPAL INFECTIOUS DISEASES FOR THE YEAR ENDED DECEMBER 31ST, 1929; ALSO A COMPARISON WITH THE YEAR 1928, AND WITH THE MEAN OF THE FIVE YEARS AND FORTY-SIX YEARS ENDED DECEMBER 31ST, 1928.

| Month.                            | Scarlet<br>Fever. | Mixed<br>Infection. | Measles. | Enteric<br>Fever. | Typhus<br>Fever. | Diphtheria. | Erysipelas. | Puerperal<br>Fever. | Smallpox | Advanced<br>Tuberculosis | Other<br>Diseases. | Totals. |
|-----------------------------------|-------------------|---------------------|----------|-------------------|------------------|-------------|-------------|---------------------|----------|--------------------------|--------------------|---------|
| January .....                     | 84                | 10                  | ..       | ..                | ..               | 37          | 9           | 2                   | ..       | 32                       | 35                 | 209     |
| February .....                    | 45                | 1                   | ..       | ..                | ..               | 27          | 7           | 4                   | ..       | 27                       | 28                 | 139     |
| March .....                       | 61                | 3                   | 4        | ..                | ..               | 39          | 13          | ..                  | ..       | 20                       | 28                 | 168     |
| April .....                       | 54                | 8                   | 4        | 1                 | ..               | 51          | 5           | 1                   | ..       | 17                       | 21                 | 162     |
| May .....                         | 49                | 4                   | 7        | ..                | ..               | 74          | 14          | 2                   | ..       | 21                       | 15                 | 186     |
| June .....                        | 48                | 6                   | 3        | 2                 | ..               | 37          | 5           | 2                   | ..       | 29                       | 24                 | 156     |
| July .....                        | 64                | 9                   | ..       | 2                 | ..               | 34          | 5           | 2                   | ..       | 21                       | 25                 | 162     |
| August .....                      | 45                | 4                   | 3        | 3                 | ..               | 41          | 6           | 2                   | ..       | 22                       | 19                 | 145     |
| September ...                     | 49                | 3                   | ..       | 2                 | ..               | 66          | 4           | 4                   | ..       | 16                       | 30                 | 174     |
| October .....                     | 59                | 5                   | 1        | ..                | ..               | 89          | 9           | 3                   | ..       | 23                       | 40                 | 229     |
| November ...                      | 78                | 1                   | ..       | ..                | ..               | 59          | 9           | 2                   | ..       | 22                       | 30                 | 201     |
| December ....                     | 71                | 6                   | 2        | ..                | ..               | 52          | 10          | 3                   | ..       | 24                       | 31                 | 199     |
| Totals .....                      | 707               | 60                  | 24       | 10                | ..               | 606         | 96          | 27                  | ..       | 274                      | 326                | 2130    |
| Totals, 1928 ..                   | 894               | 47                  | 19       | 14                | ..               | 367         | 66          | 28                  | ..       | 322                      | 238                | 1995    |
| Increase, 1929                    | ..                | 13                  | 5        | ..                | ..               | 239         | 30          | ..                  | ..       | ..                       | 88                 | 135     |
| Decrease, 1929                    | 187               | ..                  | ..       | 4                 | ..               | ..          | ..          | 1                   | ..       | 48                       | ..                 | ..      |
| Mean of 5 years<br>1924-1928      | 661.4             | ..                  | 12.4     | 14.6              | ..               | 365.0       | 50.4        | 18.0                | ..       | 244.4                    | 205.8              | 1581.6  |
| Mean of 46<br>years—<br>1883-1928 | 829.2             | ..                  | 3.8      | 118.6             | 4.6              | 196.2       | 31.4        | 10.6                | 13.1     | 45.5                     | 123.8              | 1381.0  |



TABLE IV.  
ANNUAL STATEMENT.

| Disease.                      | No. of Cases<br>Remaining<br>in Hospital<br>on Dec. 31st.<br>1928. | No. of<br>Cases<br>Treated. | No. of<br>Cases<br>Admitted. | No. of<br>Cases<br>Discharged. | No. of<br>Deaths. | No. of Cases<br>Remaining<br>on Dec. 31st.<br>1929. |
|-------------------------------|--------------------------------------------------------------------|-----------------------------|------------------------------|--------------------------------|-------------------|-----------------------------------------------------|
| Scarlet Fever..               | 104                                                                | 811                         | 707                          | 734                            | 2                 | 75                                                  |
| Measles .....                 | ..                                                                 | 24                          | 24                           | 22                             | ..                | 2                                                   |
| Enteric Fever..               | ..                                                                 | 10                          | 10                           | 8                              | 2                 | ..                                                  |
| Mix'd Infections              | 11                                                                 | 71                          | 60                           | 54                             | 10                | 7                                                   |
| Diphtheria ....               | 40                                                                 | 646                         | 606                          | 530                            | 36                | 80                                                  |
| Erysipelas.....               | 6                                                                  | 102                         | 96                           | 89                             | 3                 | 10                                                  |
| Puerperal Fever               | 4                                                                  | 31                          | 27                           | 24                             | 5                 | 2                                                   |
| Smallpox ....                 | 49                                                                 | 323                         | 274                          | 196                            | 65                | 62                                                  |
| Other Diseases..              | 14                                                                 | 340                         | 326                          | 301                            | 16                | 23                                                  |
| Total ....                    | 228                                                                | *2358                       | †2130                        | 1958                           | 139               | †261                                                |
| Corresponding figures, 1928.. |                                                                    | 2260                        | 1995                         | 1895                           | 137               | 228                                                 |
| Average five years .....      |                                                                    | 1765.8                      | 1581.6                       | 1443.0                         | 120.8             | 206.0                                               |

|           | From<br>" Out-Districts." | From<br>" Out-Districts." | From<br>" Out-Districts." |
|-----------|---------------------------|---------------------------|---------------------------|
| 1929..... | *469                      | †423                      | †47                       |
| 1928..... | 446                       | 394                       | 46                        |



TABLE V.—DISEASES ADMITTED—Continued.

| CASES SENT IN AS                  | HOSPITAL DIAGNOSIS. |           |                     |             |                        |                       |                       |        |      |           |              |               |            |                   |                        |                |               |                       |           |          |              |                        |                |              |                     |                |           |              |                  |               |                   |                 |              |          |                  |    |    |
|-----------------------------------|---------------------|-----------|---------------------|-------------|------------------------|-----------------------|-----------------------|--------|------|-----------|--------------|---------------|------------|-------------------|------------------------|----------------|---------------|-----------------------|-----------|----------|--------------|------------------------|----------------|--------------|---------------------|----------------|-----------|--------------|------------------|---------------|-------------------|-----------------|--------------|----------|------------------|----|----|
|                                   | Influenza           | Impetigo. | Intestinal Toxæmia. | Laryngitis. | Laryngitis Stridulosa. | Miliary Tuberculosis. | Mitral Heart Disease. | Mumps. | Nil. | Otorrhœa. | Observation. | Otitis Media. | Pneumonia. | Pneumonia, Lobar. | Pneumonia, Influenzal. | Poliomyelitis. | Phosphaturia. | Pemphigus Neonatorum. | Rhinitis. | Rubella. | Septic Hand. | Septic Wound of Scalp. | Septic Throat. | Sore Throat. | Sore Arm and Thigh. | Serum Disease. | Syphilis. | Tonsillitis. | T.B. Meningitis. | Trauma, Neck. | Vincent's Angina. | Whooping Cough. | With Mother. | Whitlow. | Premature Birth. |    |    |
| Scarlet Fever . . . . .           | 5                   | ..        | ..                  | ..          | ..                     | ..                    | ..                    | ..     | 2    | ..        | ..           | ..            | 1          | 1                 | 1                      | ..             | ..            | ..                    | ..        | 2        | 17           | ..                     | ..             | 6            | ..                  | ..             | ..        | ..           | 20               | ..            | ..                | ..              | 1            | ..       | ..               | .. | .. |
| Mixed . . . . .                   | ..                  | ..        | ..                  | ..          | ..                     | ..                    | ..                    | ..     | ..   | ..        | ..           | ..            | ..         | ..                | ..                     | ..             | ..            | ..                    | ..        | ..       | ..           | ..                     | ..             | ..           | ..                  | ..             | ..        | 1            | ..               | ..            | ..                | ..              | ..           | ..       | ..               | .. | .. |
| Measles . . . . .                 | ..                  | ..        | ..                  | ..          | ..                     | ..                    | ..                    | ..     | ..   | ..        | ..           | ..            | ..         | ..                | ..                     | ..             | ..            | ..                    | ..        | ..       | ..           | ..                     | ..             | ..           | ..                  | ..             | ..        | ..           | ..               | ..            | ..                | ..              | ..           | ..       | ..               | .. | .. |
| Enteric Fever . . . . .           | 1                   | ..        | 1                   | ..          | ..                     | ..                    | ..                    | ..     | ..   | 1         | ..           | ..            | ..         | ..                | ..                     | ..             | ..            | ..                    | ..        | ..       | ..           | ..                     | ..             | ..           | ..                  | ..             | ..        | ..           | 2                | ..            | ..                | ..              | ..           | ..       | ..               | .. | .. |
| Diphtheria . . . . .              | 1                   | ..        | 5                   | 1           | ..                     | ..                    | ..                    | ..     | ..   | 1         | ..           | ..            | ..         | ..                | 2                      | ..             | ..            | ..                    | 1         | ..       | ..           | ..                     | 3              | 14           | ..                  | ..             | ..        | 199          | ..               | 1             | 3                 | ..              | ..           | ..       | ..               | .. | .. |
| Erysipelas . . . . .              | 1                   | ..        | ..                  | ..          | ..                     | ..                    | ..                    | ..     | ..   | ..        | ..           | ..            | ..         | ..                | ..                     | ..             | ..            | ..                    | ..        | ..       | ..           | ..                     | ..             | ..           | ..                  | ..             | ..        | ..           | ..               | 1             | ..                | ..              | ..           | ..       | ..               | .. | .. |
| Puerperal Fever . . . . .         | ..                  | ..        | ..                  | ..          | ..                     | ..                    | ..                    | ..     | ..   | ..        | ..           | ..            | 1          | ..                | ..                     | ..             | ..            | ..                    | ..        | ..       | ..           | ..                     | ..             | ..           | ..                  | ..             | ..        | ..           | ..               | ..            | ..                | ..              | ..           | ..       | ..               | .. | .. |
| Pulmonary Tuberculosis . . . . .  | ..                  | ..        | ..                  | ..          | ..                     | ..                    | ..                    | ..     | ..   | ..        | ..           | ..            | ..         | ..                | ..                     | ..             | ..            | ..                    | ..        | ..       | ..           | ..                     | ..             | ..           | ..                  | ..             | ..        | ..           | ..               | ..            | ..                | ..              | ..           | ..       | ..               | .. | .. |
| Cerebro-Spinal Fever . . . . .    | ..                  | ..        | ..                  | ..          | ..                     | ..                    | ..                    | ..     | ..   | ..        | ..           | ..            | ..         | ..                | ..                     | ..             | ..            | ..                    | ..        | ..       | ..           | ..                     | ..             | ..           | ..                  | ..             | ..        | ..           | ..               | ..            | ..                | ..              | ..           | ..       | ..               | .. | .. |
| Encephalitis Lethargica . . . . . | ..                  | ..        | ..                  | ..          | 1                      | ..                    | ..                    | ..     | ..   | ..        | ..           | ..            | ..         | ..                | ..                     | ..             | ..            | ..                    | ..        | ..       | ..           | ..                     | ..             | ..           | ..                  | ..             | ..        | ..           | ..               | ..            | ..                | ..              | ..           | ..       | ..               | .. | .. |
| Miscellaneous Diseases . . . . .  | 9                   | ..        | 1                   | ..          | ..                     | 1                     | 1                     | 1      | ..   | 4         | ..           | 2             | ..         | ..                | 4                      | 1              | 1             | 3                     | ..        | ..       | 2            | 1                      | 1              | 1            | 1                   | 1              | 1         | 1            | 5                | ..            | ..                | ..              | 18           | 3        | 1                | .. | .. |



## Report on Diphtheria Immunization.

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Diphtheria and Membranous Croup show no signs of becoming milder, and this last year these diseases have been more prevalent and of a more severe type, and have been the cause of an increased mortality in this City. A method of preventing these diseases by inoculation being known, and having been in use successfully for a number of years in different towns of this country, as well as abroad, especially America; also it having been used with success for the protection of the staff at the Ladywell Sanatorium for the last four years, it was decided by the Health Committee to offer facilities of protection by this method to the general public. The method consists of three small injections, at weekly intervals, of a quite harmless preparation—called Toxoid. This causes hardly any pain and is followed by no harmful effects in children. Occasionally in adults some soreness of the arm results and some indisposition for a day or two, but this quickly passes over. The protection takes some months to get fully established, but after that lasts for a good number of years. A test (Schick test) also is available by which it can be determined whether any person is susceptible to diphtheria and requires this protection or not.

It was proposed to hold two clinics in the afternoons, 2-30 to 4 p.m., on Mondays at Regent Road and on Fridays at Teneriffe Street School, and at first to offer protection by this method to children from six months to five years, these children being the most susceptible to the disease. Dr. W. Edge, who had had a good experience of the method, undertook the work. The opening was fixed for the first week in September. It

was essential for the success of the scheme to advertise it as widely as possible. Leaflets and posters were printed and distributed at Regent Road and at Ladywell Sanatorium, and a display window was fitted at Regent Road. It was also important to get, if possible, the co-operation of the general medical practitioners. A circular letter was sent, with this object, to all doctors, explaining the method and its advantages. An opportunity was also given to them to attend a demonstration of these methods. Salford Royal Hospital having asked to have their nurses protected against both diphtheria and scarlet fever, doctors were invited to attend on five different days at that Hospital, where the work was undertaken by Dr. W. Edge. About 20 doctors availed themselves of this, and underwent the test (Schick test). 52 of the nursing staff were tested in August by the Schick test and 51 by the Dick test (corresponding test for scarlet fever).

23 gave positive Schick tests, showing that they required protection, being liable to get diphtheria.

14 gave positive Dick tests, showing liability to get scarlet fever.

The first protective inoculations were administered, after which the Resident Medical Staff were to carry on the further injections and deal in future, in the same way, with any new arrivals.

Up to the time of writing, May, 1930, the protection conferred has been very successful, only one Sister having developed diphtheria, and she was not amongst the numbers protected. Previously cases of each disease occurred frequently amongst the Staff.



The clinics commenced work on Monday, 2nd September, and were held uninterruptedly, including even the Christmas vacations. The response was poor to begin with, but this can be explained by inadequate propaganda. Dr. W. Edge found people willing to have their children done when the method and its advantages were explained to them, and met only exceptionally with refusals. Lectures were given to Sanitary Inspectors and Health Visitors, as it was important that they should be correctly informed, seeing that they came in contact with people in their homes and were asked questions; to a group of mothers at a maternity clinic, and at their invitation at a meeting of the West Salford Labour Party. In addition Dr. Edge takes every opportunity to speak to parents of children who are patients in Ladywell, and to urge them to have their other children protected.

Up to the end of the year the numbers dealt with were as follows:

|                                                                    | Regent<br>Road<br>Clinic | Teneriffe<br>Street<br>Clinic | Totals |
|--------------------------------------------------------------------|--------------------------|-------------------------------|--------|
| Schick test .....                                                  | 30                       | 13                            | 43     |
| Numbers inoculated .....                                           | 56                       | 42                            | 98     |
| Numbers who did not complete<br>course of three inoculations ..... | 3                        | 8                             | 11     |

In addition four children had the Dick test performed and three children inoculated against scarlet fever. There were also a number of children tested and inoculated at Ladywell Sanatorium, of which a record will be found in the Ladywell Report. There were no unpleasant reactions of any kind in connection with these inoculations, and parents all expressed themselves quite satisfied with what was done for them.



## SECTION III. (a).

## Venereal Diseases Scheme.

## City of Salford.

## ANNUAL REPORT,

1st APRIL, 1929—31st MARCH, 1930.

I have the honour to submit the Second Annual Report upon the working of the Municipal Clinic for the diagnosis and treatment of venereal diseases.

The Annual Return rendered to the Ministry of Health upon Form V.D. (R.) embraces the calendar year from 1st January to 31st December, 1929. This form is attached to the present report.

It has been thought advisable upon this occasion to choose for review the twelve months ending on 31st March, 1930, firstly because the financial year ends on and accounts are made up to that date; and secondly, because, since the Municipal Clinic was opened on the 1st April, 1928, each year of its working coincides with the financial year. By taking this period of twelve months rather than the calendar year, a more accurate estimation of the cost is obtained.

In my previous Annual Report only nine months were dealt with—1st April to 31st December, 1928. It

is, therefore, now necessary to consider both the twelve-month periods—1st April, 1928, to 31st March, 1929, and 1st April, 1929, to 31st March, 1930. In other words, the present report really resolves itself into a review extending over two years.

Chart No. 1 shows graphically, month by month, the new patients handled, the number of cases dealt with individually by medical officers, and the intermediate and total attendances registered since the Clinic was opened. It will be seen that there is, during 1929–30, a well-marked increase under each heading. This upward trend still continues. The result of the appointment of a Deputy and Assistant V.D. Officer—Dr. F. W. F. Purcell, M.R.C.S., L.R.C.P.—at the end of September, 1928, is well shown by the number of patients receiving individual attention, rising from 1,000 in September to over 1,500 in the succeeding month. Since then, it will be observed that the purple line steadily rises. Contributing to this rise, and in part necessitated by it, were the appointments, first of a whole-time lady medical officer for the Female Department—Dr. F. M. Blades, M.B., Ch.B.—in August, 1929, and of a part-time assistant medical officer for the Male Department—Dr. Andrew Bury, M.A., LL.B. (Cantab.), M.B., Ch.B. (Edin.), L.R.C.P., L.R.C.S., L.R.F.P.S. (Glas.). The effect of Dr. Blades' appointment is shown in Chart No. III., which illustrates the attendances in the Female Department.

The increase of work in the Male Department made it necessary to replace the part-time Medical Officer by a



CHART N<sup>o</sup> 1.

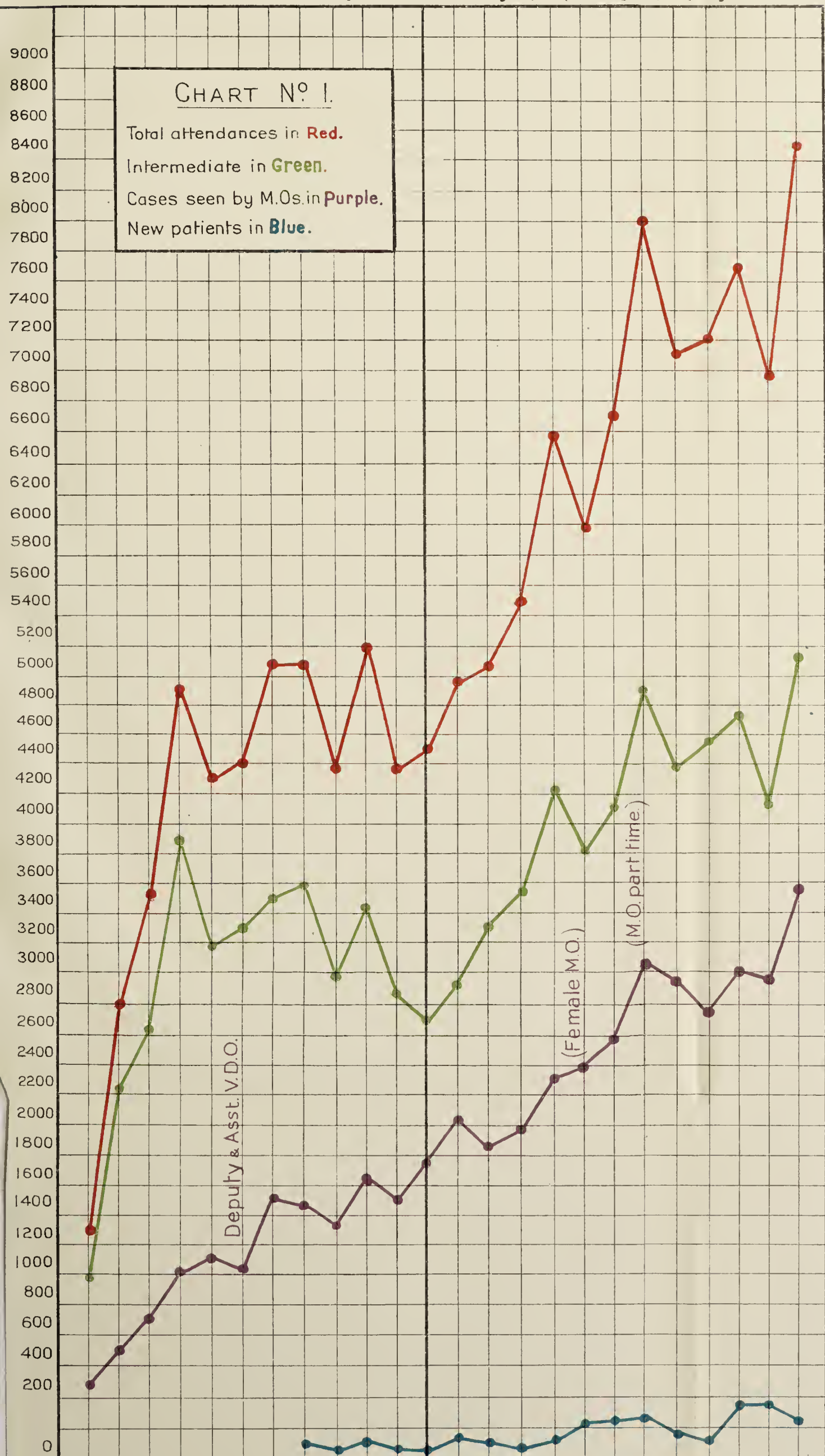
1928-29

1929-30

April May June July August September October November December January February March April May June July August September October November December January February March

CHART N<sup>o</sup> 1.

Total attendances in Red.  
Intermediate in Green.  
Cases seen by M.O.s in Purple.  
New patients in Blue.







whole-time Junior Assistant. Dr. R. Marinkovitch, M.D., Ch.B., was appointed to this post in April, 1930.

Chart No. II. illustrates the annual figures under the different categories from 1919 to 1930. The result of the opening of the Municipal Clinic is well seen in the steep rise in 1928-29. On this chart will be found a comparison between the amount of work done at the Salford Municipal Clinic and at the combined Treatment Centres in Manchester. On account of the proximity of Manchester to Salford and the fact that patients resident in one area sometimes attend at the Treatment Centres of the other, it is a matter of some interest and importance to consider this point.

**TABLE I.**

MANCHESTER RESIDENTS TREATED AT SALFORD CLINIC.

|         | Year. | Number. | Per cent. |
|---------|-------|---------|-----------|
| 1929-30 | ..... | 614     | 28        |
| 1928-29 | ..... | 338     | 21        |

The following table gives particulars of the number of attendances and in-patient days in respect of Manchester patients treated in Salford Royal Hospital and in the Municipal Clinic during the years 1925-6-7-8-9, together with the cost per attendance.

**TABLE II.**

IN-PATIENT DAYS.

| Year. | Clinic.                | Number of Out Patient attendances. | Number of In-Patient days. | Equivalent Number of attendances on Ministry of Health basis. | Total attendances. | Total cost.         | Cost per attendance. |
|-------|------------------------|------------------------------------|----------------------------|---------------------------------------------------------------|--------------------|---------------------|----------------------|
| 1925  | Salford Royal .....    | 2,043                              | 28                         | 70                                                            | 2,113              | £ s. d.<br>369 13 9 | s. d.<br>3 6         |
| 1926  | Do. ....               | 2,283                              | 28                         | 70                                                            | 2,353              | 364 12 9            | 3 1.2                |
| 1927  | Do. ....               | 1,875                              | 42                         | 105                                                           | 1,980              | 320 2 0             | 3 2.8                |
| 1928  | Do. ....<br>(3 months) | 517                                | —                          | —                                                             | 517                | 86 17 1             | 3 4.3                |
| 1928  | Municipal (9 months)   | 9,903                              | 72                         | 180                                                           | 10,083             | 1,070 8 6           | 2 1.5                |
| 1929  | „ .....                | 20,223                             | 400                        | 1,000                                                         | 21,223             | 1,937 5 2           | 1 9.9                |

The succeeding table gives similar particulars in respect of Salford residents treated in the Manchester Clinics.

**TABLE III.**  
IN-PATIENT DAYS.

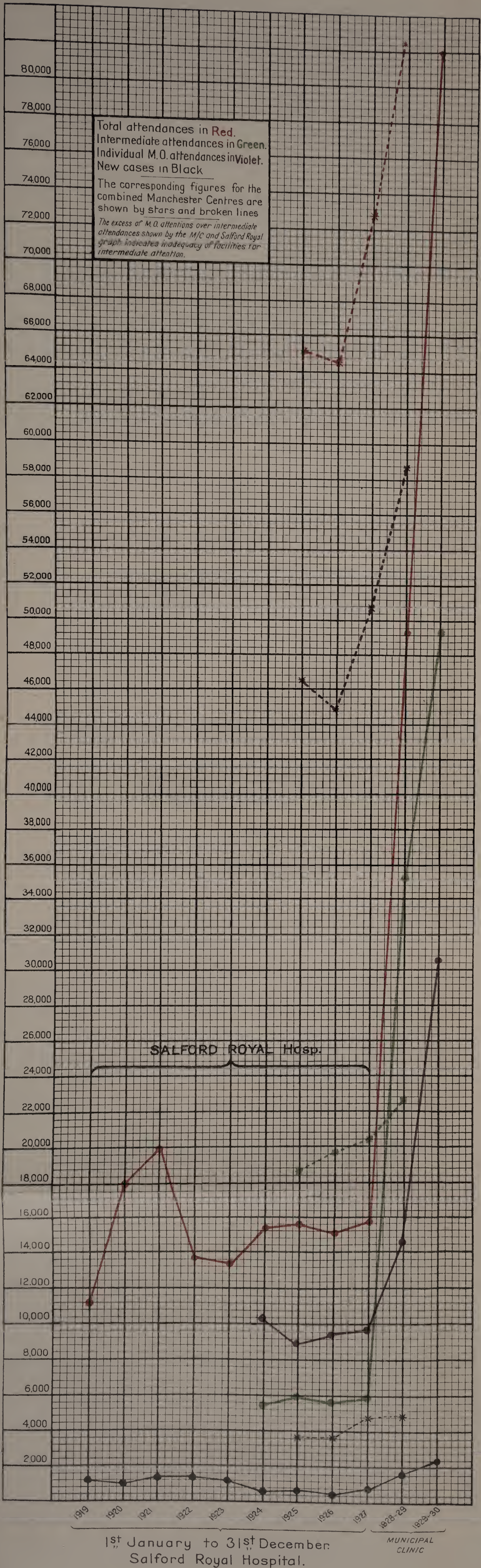
| Year. | Clinic.          | Number of Out-Patient attendances. | Number of In-Patient days. | Equivalent Number of attendances on Ministry of Health basis. | Total attendances. | Total cost. |    |    | Cost per attendance. |       |
|-------|------------------|------------------------------------|----------------------------|---------------------------------------------------------------|--------------------|-------------|----|----|----------------------|-------|
|       |                  |                                    |                            |                                                               |                    | £           | s. | d. | s.                   | d.    |
| 1925  | Manchester ..... | 5,735                              | 262                        | 655                                                           | 6,390              | 1,110       | 17 | 5  | 3                    | 5·78  |
| 1926  | Do. ....         | 5,088                              | 388                        | 970                                                           | 6,058              | 1,028       | 13 | 8  | 3                    | 4·75  |
| 1927  | Do. ....         | 4,719                              | 302                        | 755                                                           | 5,474              | 888         | 12 | 6  | 3                    | 2·96  |
| 1928  | Do. ....         | 4,305                              | 174                        | 435                                                           | 4,740              | 629         | 0  | 7  | 2                    | 7·85  |
| 1929  | Do. ....         | 4,107                              | 238                        | 595                                                           | 4,702              | 692         | 3  | 9  | 2                    | 11·33 |

In Tables II. and III. the attendances and cost have reference to the respective calendar years.

It is evident that the Municipal Clinic attracts patients from other areas in which there are already Treatment Centres ; and it must continue to do so for as long as such areas fail to provide treatment facilities as good or better than are available in Salford. A certain number of patients will, of course, go to a Centre remote from the district in which they reside—even though the facilities provided be inferior—for reasons of privacy. But, making all due allowances for this, the number of “extra-territorial” patients attending the Municipal Clinic by preference, and often at much inconvenience, indicates that the service provided is the attraction. Salford is, in many respects, carrying “the heavy end of the stick,” and we can only be relieved from this burden when neighbouring local authorities render a similar service to their own residents. In other words, we are



CHART N° 2







bound by the law of the land to treat patients who come to us, irrespective of where they reside. Unless similar *ad hoc* all-day and every-day whole-time Clinics are established by neighbouring local authorities, the Municipal Clinic will be compelled to continue devoting over a quarter of its time and labour to "foreign" patients. It is necessary to point out here, however, that when a patient resides in another area administered by a different local authority, the cost of that patient's treatment may be charged to the Medical Officer of Health of his area.

The following table shows the number of patients from various areas :—

TABLE IV.

| Area.                  | 1928—29.   |           | 1929—30.   |           | 1928—30.<br>(2 years.) |           |
|------------------------|------------|-----------|------------|-----------|------------------------|-----------|
|                        | New cases. | Per cent. | New cases. | Per cent. | Total cases.           | Per cent. |
| SALFORD .....          | 830        | 51·3      | 1,030      | 47·4      | 1,850                  | 49·1      |
| Manchester .....       | 338        | 21·1      | 614        | 28·3      | 952                    | 25·2      |
| Lancashire .....       | 154        | 9·8       | 231        | 10·6      | 385                    | 10·2      |
| Cheshire .....         | 47         | 2·9       | 59         | 2·7       | 106                    | 2·8       |
| Other areas .....      | 62         | 3·9       | 54         | 2·5       | 116                    | 3·1       |
| Seamen (British) ..... | 104        | 6·5       | 115        | 5·3       | 219                    | 5·8       |
| Seamen (Foreign)       | 72         | 4·5       | 69         | 3·2       | 141                    | 3·8       |
| Total .....            | 1,597      | 100       | 2,172      | 100       | 3,769                  | 100       |

It will be seen that during 1929–30, of the new patients handled, 52·6 per cent belonged to areas other than Salford, and that 28·3 per cent were Manchester residents.



The total attendances—which represent the actual work involved—put in by patients from each area is tabulated below. (Attendances are inclusive of in-patient days.)

TABLE V.

| Area.                  | 1928-29.          |              | 1929-30.          |              | 1928-30. |              |
|------------------------|-------------------|--------------|-------------------|--------------|----------|--------------|
|                        | Attend-<br>ances. | Per<br>cent. | Attend-<br>ances. | Per<br>cent. | Total.   | Per<br>cent. |
| SALFORD .....          | 27,970            | 54·5         | 43,832            | 52·0         | 71,802   | 52·9         |
| Manchester .....       | 13,937            | 27·1         | 24,792            | 29·4         | 38,729   | 28·6         |
| Lancashire .....       | 5,586             | 10·9         | 10,331            | 12·2         | 15,917   | 11·7         |
| Cheshire .....         | 1,347             | 2·6          | 1,923             | 2·3          | 3,270    | 2·4          |
| Other areas .....      | 1,096             | 2·1          | 1,355             | 1·6          | 2,451    | 1·8          |
| Seamen (British) ..... | 1,168             | 2·3          | 1,698             | 2·0          | 2,866    | 2·1          |
| Seamen (Foreign) ..... | 257               | ·5           | 385               | ·5           | 642      | ·5           |
| Total .....            | 51,361            | 100          | 84,316            | 100          | 135,677  | 100          |

Again, Table V. demonstrates that of the total work done at the Municipal Clinic since its opening, only 52·9 per cent has been in respect of Salford residents.

### NEW PATIENTS.

The following table shows the new cases for past two years, analysed according to sex or disease :—

TABLE VI.

| 1928-29. |     |     |      |          |    |     |      | 1929-30. |     |     |      |          |     |     |      |
|----------|-----|-----|------|----------|----|-----|------|----------|-----|-----|------|----------|-----|-----|------|
| Males.   |     |     |      | Females. |    |     |      | Males.   |     |     |      | Females. |     |     |      |
| S.       | G.  | Ch. | N.V. | S.       | G. | Ch. | N.V. | S.       | G.  | Ch. | N.V. | S.       | G.  | Ch. | N.V. |
| 306      | 647 | 17  | 367  | 71       | 95 | —   | 94   | 366      | 718 | 25  | 578  | 105      | 120 | —   | 260  |
| 1,337    |     |     |      | 260      |    |     |      | 1,687    |     |     |      | 485      |     |     |      |
| 1,597    |     |     |      |          |    |     |      | 2,172    |     |     |      |          |     |     |      |

Of all new patients attending at the Clinic, it is found that some 35 per cent are not suffering from any venereal disease. This is very satisfactory, and shows that there is a large number of people sufficiently alive to the importance of venereal disease to seek advice from the Clinic on the slightest actual or imagined suspicion. It might be argued that this shows an undesirable state of fear—that such people have developed a “ phobia ” with respect to venereal disease. Investigation shows, however, that practically all the non-venereal cases come for advice because they have recently run the risk of infection, have been to see propaganda films, or are desirous of securing a clean bill of health before entering upon matrimony. A certain proportion consists of patients who have had syphilis or gonorrhœa in the past and are anxious to know whether or not they are cured. These latter are carefully tested by provocative procedures and by serological and bacteriological methods.

The effect of propaganda films has been excellent.

They convince those who have run the risk of infection that the best policy is, as soon after the risk as possible, and *before the appearance of symptoms*, to go to the Clinic for advice and preventive treatment. This may bring upon the books many persons who would not, in any case, develop venereal disease ; but it most certainly prevents many infections, and it ensures that if disease does occur it will be diagnosed and treated at the earliest possible moment. I consider the preventive function of the Clinic to be of the highest importance.

In the following table the new cases for 1929-30 are compared with those for the preceding five years, and with the average per year during that period.

TABLE VII.

| Year                               | Total. | Syphilis. |     |        | Gonorrhoea. |     |        | Chancroid. |    |        | Not V.D. |     |        |
|------------------------------------|--------|-----------|-----|--------|-------------|-----|--------|------------|----|--------|----------|-----|--------|
|                                    |        | M.        | F.  | Total. | M.          | F.  | Total. | M.         | F. | Total. | M.       | F.  | Total. |
| 1929/30 .....                      | 2,172  | 366       | 105 | 471    | 718         | 120 | 838    | 25         | —  | 25     | 578      | 260 | 838    |
| 1928/29 .....                      | 1,597  | 306       | 71  | 377    | 647         | 95  | 742    | 17         | —  | 17     | 367      | 94  | 461    |
| 1927 .....                         | 478    | 87        | 45  | 132    | 193         | 20  | 213    | —          | —  | —      | 86       | 47  | 133    |
| 1926 .....                         | 469    | 90        | 38  | 118    | 166         | 25  | 191    | —          | —  | —      | 107      | 43  | 150    |
| 1925 .....                         | 493    | 106       | 35  | 141    | 203         | 31  | 234    | —          | —  | —      | 78       | 40  | 118    |
| 1924 .....                         | 547    | 102       | 55  | 157    | 250         | 25  | 275    | —          | —  | —      | 73       | 28  | 101    |
| Average for five years 1924-1928/9 | 717    | 138       | 49  | 185    | 292         | 39  | 331    | 3          | —  | 3      | 142      | 50  | 192    |

There has been a tendency in some quarters, when considering the venereal diseases figures for the whole country, to argue that because, for example, there were



42,805 new cases of syphilis in 1920 and only 22,761 in 1928, the disease is being reduced in amount in a similar proportion. Such an assumption is quite unwarranted. Upon the same basis an examination of the second column in the previous table would indicate that in Salford venereal disease has increased by leaps and bounds since the Municipal Clinic was opened in 1928. Furthermore, by a similar process of false deduction, the same column would appear to show that from 1924 to 1927 not only was there less actual venereal disease in the city, but that it was steadily being reduced year by year.

The true explanation is that the Municipal Clinic is absolutely at the disposal of the patient all day and every day; that by means of post-graduate tutorial classes—at which some forty attended—the local medical practitioner is much more alive to the presence of venereal disease than is usually the case; and that a Clinic specially designed and worked by a trained whole-time staff will inevitably attract and retain patients. The better the facilities provided for diagnosis and treatment, the more venereal patients will appear. The disease has not been increasing; it is merely being uncovered and properly handled.

Wherever laxness, unenthusiasm, or inefficiency creeps in, there the number of patients and their attendances fall off. A reorganisation invariably results in an increase in both these directions. There is every justification for the statement that were all the Treatment Centres in the country reorganised upon the *ad hoc* whole-time basis, the number of infected persons dealt

with would be very much greater than it has ever been. But to reason from such an event that the disease is increasing, or to congratulate oneself that the general fall in new patients for the whole country indicates that syphilis and gonorrhœa are being stamped out, are equally absurd.

High as the figures may appear, I do not consider that the incidence of new cases at the Municipal Clinic is satisfactory. They should reach at least 3,000 a year—not all of them, of course, being recent infections. I am convinced that with expansion of accommodation and increase of staff, coupled with a systematic and far-reaching propaganda campaign, the figure quoted should be reached and maintained for several years. We are still only touching the outer fringe of the infected population. It is mere folly to delude oneself, great though the work may be which has already been accomplished, that the scheme as it stands at present is doing anything like what it ought. If it is to pull its full weight in the community and render an adequate return for expenditure, it must be expanded.

More accommodation is needed, especially with respect to women and children. For these, in-patient facilities—and such facilities are essential—do not exist at present. Further reference to this matter of bed-accommodation will be made later on in this report.

In order to gauge the work of the Clinic, it is necessary to consider the relative numbers and proportions of



females to males among new patients. This is indicated in Table VIII.

**TABLE VIII.**

PROPORTIONS OF FEMALES TO MALES.

| Area.                 | Syphilis. | Gonorrhœa. | Chancroid. | Not V.D. |
|-----------------------|-----------|------------|------------|----------|
| Salford . . . . .     | 1 to 3·4  | 1 to 5·9   | —          | 1 to 2·2 |
| England and Wales . . | 1 to 1·6  | 1 to 4·0   | —          | 1 to 1·8 |

From the above figures it is clear that the Salford Scheme is not getting into touch with a sufficient number of women. It is in this respect that a local branch of the British Social Hygiene Council could do much valuable work. Further reference will be made to this point later.

Men avail themselves more readily of the treatment facilities offered than do women. It must be remembered, however, that syphilis is, in women, a much milder disease than in men ; and that the signs of gonorrhœa are, in the male, much more clamant than in the opposite sex. These factors undoubtedly so conspire that venereal disease is more often unsuspected by the patient and overlooked by the medical attendant in women than is the case where men are concerned.

Experience would seem to show that, for all practical purposes, the main reservoir of venereal infection in the community must be considered as existing in the female sex—the professional and the amateur prostitute chiefly ; while the male section of the population must be regarded as the means by which infection is conveyed from that



reservoir to previously healthy females. The promiscuous man, however, is not only acquiring infection from the reservoir but is actually adding to it.

The total number of new patients during 1929-30 suffering from venereal disease was 1,334. Of these 1,109 were men and 225 were women. Although these were new cases, so far as the Clinic is concerned, they were by no means all recent infections. This is shown in the following table:—

TABLE IX.

| MALES.                     |                  |                 |                  | FEMALES.                   |                  |                 |                  |
|----------------------------|------------------|-----------------|------------------|----------------------------|------------------|-----------------|------------------|
| Duration of infection with |                  |                 |                  | Duration of infection with |                  |                 |                  |
| Syphilis.                  |                  | Gonorrhœa.      |                  | Syphilis.                  |                  | Gonorrhœa.      |                  |
| Over<br>1 year.            | Under<br>1 year. | Over<br>1 year. | Under<br>1 year. | Over<br>1 year.            | Under<br>1 year. | Over<br>1 year. | Under<br>1 year. |
| 172                        | 194              | 123             | 595              | 57                         | 48               | 24              | 96 .             |

The above table is exclusive of 25 male cases of chancroid. Of the new cases, then, 376 were infections of old standing, while in 933 instances the disease had been acquired within the previous twelve months. It is to be noted that while the ratio of fresh infections to old ones was 2·6 to 1 in males, it was 1·7 to 1 in females. This again corroborates the point to which reference has already been made, namely, that venereal disease remains undiagnosed, and consequently untreated, longer in women than in men. The influence of this in promoting

the spread of infection scarcely requires comment, but it does indicate the urgent need for education and propaganda to bring infected women under treatment at an early stage.

The stages of syphilis in which new patients suffering from that disease presented themselves at the Clinic are indicated below.

TABLE X.

| Stage of Disease.             | Males. | Females. | Total. |
|-------------------------------|--------|----------|--------|
| Early Syphilis—               |        |          |        |
| Primary—Sero-negative . . .   | 86     | 8        | 94     |
| Primary—Sero-positive . . .   | 47     | 8        | 95     |
| Early secondary . . . . .     | 29     | 8        | 37     |
| Late secondary . . . . .      | 20     | 18       | 38     |
|                               |        |          | 224    |
| Late Syphilis—                |        |          |        |
| Endosyphilis . . . . .        | 120    | 32       | 152    |
| Tertiary Syphilis . . . . .   | 17     | 3        | 20     |
| Neurosyphilis . . . . .       | 31     | 6        | 37     |
| Congenital Syphilis . . . . . | 16     | 22       | 33     |
|                               |        |          | 247    |
| Grand Total . . . . .         | 366    | 105      | 471    |

By *early* syphilis is meant those cases belonging to the primary and secondary phases, in which we know from experience that whatever visceral involvement there may be, it presents, as a rule, no clinical signs, and that the structural damage is trifling, temporary, and reparable. By *late* syphilis—and here the congenital variety is included—is meant that condition in which visceral structural damage is the predominating feature in the picture. It is severe, permanent, and rather more than less irreparable.

The small proportion of early cases as compared with the later stages of the disease, probably indicates that the majority of syphilitics in the community are cases of old standing. I believe that the preponderating majority of infected persons in England and Wales present no obvious symptoms of the disease and are suffering from syphilis of some important organ or system—for example, the heart or nervous system—and it is this type of patient who dies from the disease. It is not called “syphilis” on the death certificate, but is camouflaged under some less offensive epithet, such as “aneurism,” “heart disease,” or “locomotor ataxia.”

Upon every person who attends the Clinic, no matter from what he or she may be suffering, a routine blood-Wasserman test is carried out for syphilis. The performance of this routine Wasserman discloses 7·5 per cent of cases which would otherwise be missed. During the course of post-graduate lectures I gave during 1929–30, I emphasised the value of this routine test. As a result, many patients have been sent in by private practitioners to have this done, or to be treated for an unsuspected syphilis which was discovered by this means.

Table X. (page 149) shows that roughly 48 per cent of new syphilis patients are in the early stages of the disease. The result of treatment is, of course, vastly better in early than in late syphilis. The experience at this Clinic is that where these cases of early syphilis—previously untreated—complete their course according to schedule, they are found to be negative at its termination. Up to date there has been, in spite of provocation,



no instance of Wasserman-relapse, Wasserman-fastness, or clinical recurrence in any male patient. These results are considered to be attributable to the fact that in this Clinic, treatment is administered upon the alternating principle, i.e., the remedial agents, arsenobenzene and bismuth, are not given simultaneously but in alternating series. In this way an excessive load is not thrown upon the eliminatory mechanism; the bombardment of, and damage to, the patient is not so severe as by the concurrent method; the reactive power of the tissues does not become exhausted; the infecting parasite is not encouraged to develop drug-resistance; and, there being no rest periods during treatment, the *treponema pallidum* has no opportunity to establish itself unmolested in some vital organ or tissue.

It is a matter of great interest, and probably of some importance, to consider the occupations of patients attending. The following percentage analysis is worthy of some attention:—

|                                                     | Males.<br>Per cent. | Females.<br>Per cent. |
|-----------------------------------------------------|---------------------|-----------------------|
| Agricultural occupations . . . . .                  | 0.60                |                       |
| Makers of Bricks, Pottery and Glass :               |                     |                       |
| (1) Brick, Pottery and Earthenware . . . . .        | —                   | —                     |
| (2) Glass and Glass-ware . . . . .                  | 0.22                | —                     |
| Metal Workers (not Electro-plate) :                 |                     |                       |
| (1) Furnacemen and Puddlers . . . . .               | 0.72                | —                     |
| (2) Foundry Workers . . . . .                       | 0.90                | —                     |
| (3) Smiths and Skilled Forge Workers . . . . .      | 0.60                | —                     |
| (4) Machine and Tool Makers . . . . .               | 0.55                | —                     |
| (5) Fitters and Millwrights . . . . .               | 1.90                | —                     |
| (6) Other workers . . . . .                         | 0.94                | —                     |
| Workers in Precious Metal and Electro-plate . . .   | 0.40                | 0.35                  |
| Electrical Apparatus Makers, Fitters, Electricians. | 0.50                | —                     |

|                                                                   | Males.<br>Per cent. | Females.<br>Per cent. |
|-------------------------------------------------------------------|---------------------|-----------------------|
| Makers of Watches, Clocks and Scientific Instruments .....        | 0·05                | —                     |
| Workers in Skins and Leather :                                    |                     |                       |
| (1) Furriers, Skinners, Tanners and Leather Dressers .....        | 0·17                | —                     |
| (2) Makers of Leather Goods (not Boots and Shoes) .....           | —                   | —                     |
| Textile Workers.....                                              | 1·30                | 13·15                 |
| Makers of Textile Goods and Articles of Dress ....                | 2·30                | 2·80                  |
| Makers of and workers in Foods, Drinks and Tobacco :              |                     |                       |
| (1) Makers of Foods .....                                         | 2·50                | 0·35                  |
| (2) Makers of Drinks .....                                        | 0·22                | —                     |
| (3) Makers of Tobacco, Cigars, Cigarettes ..                      | 0·50                | —                     |
| Workers in Wood and Furniture :                                   |                     |                       |
| (1) Workers in Wood .....                                         | 2·40                | —                     |
| (2) Other Workers (Furniture) .....                               | 0·40                | —                     |
| Workers in Chemical Processes .....                               | 0·50                | 0·55                  |
| Makers of and Workers in Papers, Printers, &c. :                  |                     |                       |
| (1) Makers of Paper, Pulp, Straw and Cardboard ..                 | —                   | —                     |
| (2) Printers, Bookbinders, Photographers ....                     | 1·10                | 0·35                  |
| (3) Makers of Stationery, Cardboard and Works in Paper .....      | 0·40                | —                     |
| Painters and Decorators .....                                     | 0·72                | —                     |
| Builders, Bricklayers, Stone and Slate Workers, Contractors ..... | 3·10                | —                     |
| Makers of Mixed Material .....                                    | —                   | —                     |
| Makers of Musical Instruments .....                               | 0·05                | —                     |
| Makers of Vehicles .....                                          | 2·0                 | —                     |
| Makers of Ships and Boats .....                                   | 0·05                | —                     |
| Other Workers .....                                               | 0·30                | —                     |
| Miners .....                                                      | 2·10                | —                     |
| Labourers .....                                                   | 15·31               | —                     |
| Workers in Gas, Water and Electricity undertakings .....          | 0·40                | —                     |
| Transport and Communication :                                     |                     |                       |
| (1) Railway Workers .....                                         | 2·30                | —                     |
| (2) Road Transport .....                                          | 10·30               | —                     |
| (3) Water Transport (Seamen) .....                                | 16·32               | —                     |
| (4) Dock Labourers .....                                          | 1·30                | —                     |

|                                                   | Males.<br>Per cent. | Females.<br>Per cent. |
|---------------------------------------------------|---------------------|-----------------------|
| Commercial, Financial and Insurance Occupations : |                     |                       |
| (1) Commercial Occupations .....                  | 5·60                | —                     |
| (2) Finance and Insurance .....                   | 0·60                | —                     |
| Shop Assistants .....                             | 3·50                | 2·45                  |
| Public Administration and Defence :               |                     |                       |
| (1) Public Administration .....                   | 0·60                | 0·35                  |
| (2) Defence .....                                 | 0·50                | —                     |
| Professional Occupations (except Clerical) .....  | 1·10                | 1·05                  |
| Clerks and Draughtsmen .....                      | 4·62                | 0·35                  |
| Warehousemen, Storekeepers, Packers .....         | 2·56                | 3·00                  |
| Entertainment and Sport .....                     | 1·85                | 2·00                  |
| Domestic Servants .....                           | 0·18                | 10·95                 |
| Waiters and Waitresses .....                      | 0·30                | 1·00                  |
| Barmen .....                                      | 0·22                |                       |
| Other Workers (skilled) .....                     | 4·40                | —                     |
| Housewives .....                                  | —                   | 49·55                 |
| Children .....                                    | 0·6                 | 7·05                  |
| No occupation .....                               | 0·55                | 4·80                  |

Among the male population of the area, about 10·3 per cent are employed in transport and communication. Of the total number of patients attending the Municipal Clinic suffering from venereal disease, 28·9 per cent are engaged in these occupations. Men employed in such work have, in our experience, a higher proportion of their number infected than has any other occupational group. It has long been recognised—and the League of Nations and the International Social Hygiene organisations have adopted special measures for dealing with the problem—that the sailor is subjected to many temptations, and members of that calling are heavily infected. The recent growth of mechanical transport—long-distance



journeys by lorry drivers who may be away from home for several days on end—has given rise to a similar problem on shore. These men have often to spend days and nights in their lorries. No adequate provision is made anywhere for their reception, comfort, or entertainment during their journeys, and it is no matter for wonder that too often they succumb to the enticement of the public-house and the allurements of the public prostitute. It seems to me that something must be done by the large road transport organisations along the lines of providing officially supervised “rest-houses” for transport drivers, where the men will be provided with comfort, good meals, and satisfactory sleeping accommodation. Such provision is most certainly in the interests of the employer.

In an address I gave in Manchester on October 9th, 1929, I emphasised the relationship between venereal disease—especially syphilis—and vehicular accidents. I pointed out that there were many cases in which transport drivers were actually suffering from syphilis of the brain and spinal cord. In the course of my address I said: “Here lies a real danger. I am acquainted with very many cases of employees of municipalities, and of private firms as well, who are in charge of trams, motor ’buses, charabancs, taxis, railway engines, and railway signal boxes, who are suffering from grave syphilitic disease of the brain and spinal cord. For these men to be in charge of the things I have mentioned is a tremendous public danger and scandal. So long as it is allowed to continue, serious and fatal accidents are inevitable. A vehicle driver or a signalman suffering from locomotor

ataxia, or general paralysis of the insane, is much more dangerous than a drunken man in the same position. Some of the road and railway accidents of which you read in the papers, apparently obscure to coroners and other investigators, are only too plain to the syphilologist. The routine examination of men in charge of public vehicles for the presence of syphilis of the central nervous system would conserve a good deal of life; but until such a thing is put on the Statute Book, it will be interesting to see which Corporation—Manchester, Salford, or somewhere in the rest of England—will be first to see to it that none of the drivers of its public vehicles is suffering from “locomotor ataxia.”

At the end of May, 1930, the Watch Committee of the Manchester City Council brought forward a proposal to institute a medical test along the lines I suggested. Whether or not this comes to pass, the fact nevertheless remains that it is far more important to be sure, from *periodical examinations*, that the driver is free from defect than that his vehicle is likewise. The mechanically propelled vehicle, when it leaves the maker's hands, carries with it a guarantee, but that does not last indefinitely; and even during the guarantee period the machine requires frequent and expert inspection. The human machine does not even carry a guarantee when delivered, and when a man is put in charge of human lives, it is surely the soundest commonsense to take every precaution that he is capable of carrying that responsibility.



A coroner's jury, in returning their verdict upon the death of a vehicle driver while actually driving, very wisely added a rider that they "were of the opinion that periodical examination should be made of all drivers in charge of a public vehicle." That such examinations must be periodical—say every twelve months—is quite obvious.

One does not claim that the elimination of the syphilitic from mechanical transport driving will utterly abolish road accidents, but it certainly will prevent some occurring. And as each accident may involve the loss of several lives, this elementary precaution is one which must appeal to every responsible citizen. It is possible, in this regard, that insurance companies might find it expedient to reduce the premiums paid by such transport organisations as carry out a periodical medical examination of their drivers.

### **Age Incidence and Marital Condition.**

The succeeding three tables are of some interest in showing the age incidence of venereal disease in this community and the marital condition of the patients at the time when they first attended.





TABLE XII.

MALE SYPHILIS—APRIL 1ST, 1929, TO MARCH 31ST, 1930—SHOWN BETWEEN DIFFERENT AGES AS PERCENTAGES OF THE TOTAL NUMBER OF CASES OF MALE SYPHILIS FOR THE YEAR.

| Age.              | Single. | Married. | Widowers. |
|-------------------|---------|----------|-----------|
| 0— 4 .....        | 1·1     | —        | —         |
| 5—14 .....        | 1·4     | —        | —         |
| 15—19 .....       | 1·4     | —        | —         |
| 20—24 .....       | 14·7    | 2·2      | —         |
| 25—29 .....       | 13·7    | 12·1     | —         |
| 30—34 .....       | 6·6     | 9·3      | —         |
| 35—44 .....       | 5·2     | 13·7     | 1·4       |
| 45—54 .....       | 2·2     | 7·1      | 1·6       |
| 55—64 .....       | 2·2     | 2·2      | 1·1       |
| 65 and over ..... | —       | 0·5      | 0·25      |

TABLE XIII.

MALE GONORRHOEA—APRIL 1ST, 1929, TO MARCH 31ST, 1930, SHOWN BETWEEN DIFFERENT AGES AS PERCENTAGES OF THE TOTAL NUMBER OF CASES OF MALE GONORRHOEA FOR THE YEAR.

| Age.              | Single. | Married. | Widowers. |
|-------------------|---------|----------|-----------|
| 0— 4 .....        | 0·1     | —        | —         |
| 5—14 .....        | —       | —        | —         |
| 15—19 .....       | 3·8     | —        | —         |
| 20—24 .....       | 23·1    | 1·9      | —         |
| 25—29 .....       | 20·6    | 11·0     | 0·3       |
| 30—34 .....       | 7·9     | 9·6      | 0·3       |
| 35—44 .....       | 4·0     | 10·4     | 0·1       |
| 45—54 .....       | 0·8     | 2·6      | 0·4       |
| 55—64 .....       | 0·4     | 1·0      | 0·1       |
| 65 and over ..... | —       | —        | —         |

The above tables—XI, XII, and XIII—show some interesting features. For example, it will be seen that the age at which a single man is most liable to acquire a

venereal disease is between 20 and 29; and that married men between the ages of 30 and 44 are more likely to be infected with syphilis or gonorrhœa than are single men in the same age-group. These facts seem to point to two main things: Firstly, that there is an urgent and continuous need for proper sex teaching to male adolescents, so that they may be made cognisant of the dangers of venereal disease and the advantages of continence before marriage and faithfulness afterwards; and secondly, that so far as married men are concerned, there must be some powerful factor which causes them to run the risk of extra-marital infection. It is a matter of some importance to identify such a factor for the venereally infected married man is not only a danger to his wife, but also to his future children. One element is the undoubted fact that many of these patients are engaged in occupations—e.g., transport drivers—which take them away from home for several days. Investigation shows, however, that a high proportion of infected husbands have acquired venereal disease during the latter part of their wives pregnancy. In other words, child-bearing has interrupted the normal marital relationships, and the husband seeks gratification elsewhere. Among a certain class of men, too—and these are usually of good social position—there is a disinclination upon their own part, and often upon that of their wives, for pregnancy to occur. There is often an economic cause for this; and various contraceptive methods are adopted, the majority of which are at variance with normal relationships. The desire for normality upon the part of the husband—usually a selfish prompting—entices him to the prostitute, professional or otherwise, because he is not interested as



to whether in that case pregnancy occurs or not. Taking no preventive measures prior to or during connection—and it is just these that the man wishes to avoid—and perhaps ignorant of the possibility of venereal prophylaxis after the act, such a man is exceedingly likely to acquire syphilis or gonorrhœa from the extra-marital partner he has chosen.

It would appear that the only practical way to combat these things is to broadcast the fact that if a man exposes himself to infection—and this he does every time he indulges in an extra-marital connection—venereal disease can be prevented if he will attend at the Clinic within 24 hours of the risk being run.

The vast majority of—practically all—the married women attending the Clinic are the innocent victims of a husband's folly, usually during her pregnancy. So far as single women are concerned, the danger age is from 15 to 19. Here again ignorance is the main cause.

### **Cost of the Scheme.**

The financial aspect of the Salford Venereal Diseases Scheme merits some attention. The total cost of the scheme for 1929-30 amounted to £8,780. The amount recoverable from other local authorities for the treatment of their patients reached approximately £2,989. The actual cost to the City of Salford was, therefore, £5,791.

It must be borne in mind, however, that for 1928, 1929, and up to 31st March, 1930, 75 per cent of the cost was paid by the Ministry of Health. Deducting this proportion, the out-of-pocket contribution of the rate-

payers of Salford for the Municipal Clinic amounted to roughly £1,448, or 1·47d. per head of the local population.

From 1st April, 1930, the contribution of the Ministry of Health to the Scheme comes out of the "block grant." The Ministry based the amount allocated to Venereal Diseases upon the year 1928-29, which was selected as the "standard year" for the whole of the country. An examination of the annual figures will show quite clearly that, so far as the Salford Scheme is concerned, that year was anything but "standard," and that, therefore, any assessment based upon it is manifestly unfair and utterly inadequate. The only year which can be taken as "standard" for the Municipal Clinic is 1929-30, and any allocation of money from the block grant based upon any year costing less than that is inadequate.

The present position would appear to be that any expenditure in excess of the amount allotted under the grant will have to be met out of the local rates. It is obvious that the sum just mentioned was settled before the amount of work done by the Clinic was realized by the Ministry. The sum is insufficient, and I would, therefore, urge that the very strongest representations be made to the Ministry of Health to have the position re-surveyed at the end of the first grant period.

Only in that way can the spirit of this section of the last Local Government Act be complied with. The strict letter of the Act, so far as it affects the Municipal Clinic, is a "dead letter," the reason being that there is no comparison whatever between the work done and its gross



cost prior to 1st April, 1928—when the clinic was established—and the work and cost since that date. Any assessment based upon the figures before the opening of the Clinic, as upon the first year of its working, is inequitable and inadequate. This inadequacy, and the consequent burden upon the ratepayers, will increase the more the Clinic develops and the greater the efficiency it attains.

The cost per out-patient during 1929-30 was just under 1s. 10d.

Attendances.

The following Table shows the average number of attendances per patient calculated as total attendances divided by the number of new patients.

| Clinic.                                | V.D.<br>Cases<br>only. | Including<br>Non-V.D.<br>Cases. |
|----------------------------------------|------------------------|---------------------------------|
| Municipal Clinic 1929-30 .....         | 57·2                   | 36·8                            |
| Municipal Clinic 1928-29 .....         | 42·1                   | 30·8                            |
| Average of 7 other large Clinics ..... | 24·8                   | 20·4                            |

Like the poor, the defaulter-problem is always with us. Defaulters are those patients, diagnosed as suffering from a venereal disease, who, whether they have or have not completed full treatment, cease to attend before undergoing tests for cure. To assume, as is sometimes done, that because a patient has undergone a certain amount of treatment before defaulting, he is probably



non-infectious, is a most dangerous proceeding. There is no means of discovering when infection has been eradicated, except by a painstaking and prolonged investigation as to cure.

There were 36 per cent of defaulters in 1929-30, as compared with 33 per cent in 1928-29.

The courses of treatment given vary in amount of drugs administered and in duration, according to the stage of the disease at which the patient presents himself. Anything less than the full routine is considered insufficient to cure the disease. These courses were set out in the previous Annual Report, and since certain slight modifications have been made recently, the new courses are again published as an appendix (Appendix II.)

Again, in this Report I would point out the great need for compulsory treatment. As an instance of the tragic result of defaulting, the following case, which was reported in a local daily newspaper on 29th January, 1929, is very instructive :—

A married woman in a local suburb administered poison to herself and her child, with fatal results to both. Shortly after birth the child's eyes became infected with gonorrhœa and, in consequence, the mother became greatly depressed. The husband, in answer to the Coroner's questions, admitted that he was suffering from gonorrhœa. The Coroner rightly stated that the man had infected his wife, and that the consequent worry had made her temporarily insane. "It is," said the Coroner, "a morally criminal act for any man to infect his wife." The fact is that the conveyance of infection by this man

undoubtedly caused the death of his wife and child. The husband may have received no treatment whatever, he may have been inadequately treated and have been discharged as cured by an incompetent person, or, what is most likely, have been a defaulter, from one of the local Treatment Centres. The lack of compulsory powers causes similar tragedies daily, fortunately only rarely resulting in death, but certainly in giving rise to an appalling amount of infection among innocent women and children. Those who have so strenuously opposed the principle of compulsory treatment must be prepared to bear upon their shoulders the responsibility for such things.

We have the weapons to protect the public from such unnecessary tragedies: all that we ask is to be given the right to use them. No amount of mouthing of pious platitudes and raising of theoretical objections ought to be allowed to interfere with the prevention of such disasters. The lack of compulsory treatment almost makes the work of the Venereal Diseases Clinics akin to bailing out a foundering ship with a sieve.

I am very strongly of the opinion that every Local Authority responsible for a Venereal Diseases Scheme ought carefully to consider the question of a compulsory treatment, and that its views ought to be communicated to the Ministry of Health. When the position is fully unfolded to the public, and especially to the women of the country who, with their children, are so often the undeserved victims of defaulting, I am convinced that compulsion will be demanded.



I read a paper on “ The Control of Venereal Disease ” before the North Western Branch of the Society of Medical Officers of Health on 8th February, 1929. The Branch was invited to consider the following questions :—

- (i) Does the Branch approve a proposal to amend the present Act to permit the sale of materials for disinfection, together with the necessary instructions ?
- (ii) Does the Branch approve the principle of compulsory treatment ?
- (iii) Does the Branch approve the suggestion that the parents of congenitally affected children should be brought within some measures of treatment ?

The address advocated all these, and the vote of the Branch was in the affirmative.

To patients who default, a “ follow-up ” letter is sent. The results obtained by these letters during 1929-30 are shown below :—

|                                             | Number. | Percentage. |
|---------------------------------------------|---------|-------------|
| Number of letters sent .....                | 720     | 100         |
| Results :—                                  |         |             |
| (1) No reply .....                          | 296     | 38·1        |
| (2) Wrong address .....                     | 168     | 23·1        |
| (3) Replied “ under own doctor ” .....      | 1       | 0·1         |
| (4) Replied “ other causes for absence ” .. | 13      | 1·8         |
| (5) Returned and attending .....            | 214     | 29·4        |
| (6) Returned for a period only .....        | —       | —           |
| (7) Returned and transferred .....          | 3       | 0·3         |
| (8) Returned and discharged .....           | 25      | 7·2         |
| Total .....                                 | 720     | 100         |



### Pathological Examinations.

The following Table shows the pathological work carried out in the Clinic and in the Pathological Laboratory by Dr. Crawford:—

| Year.     | Syphilis.        |                           |        | Gonorrhœa.      |                |        | Grand Total. |
|-----------|------------------|---------------------------|--------|-----------------|----------------|--------|--------------|
|           | Wasser-<br>mann. | Trep.<br>Pallid<br>Exams. | Total. | Gono-<br>cocci. | Pus<br>counts. | Total. |              |
| 1929-30.. | 2,133            | 111                       | 2,244  | 4,525           | 2,755          | 7,280  | 9,520        |
| 1928-29.. | 771              | 43                        | 814    | 1,867           | 4,428          | 6,295  | 7,109        |

There has been a great increase in all pathological examinations with the exception of pus-counts, where there has been a falling-off. It has not been found necessary to do this procedure quite so often as in 1928-29. Every genital sore is submitted to a dark-ground examination. Every patient attending the Clinic has a blood test done upon his first visit, no matter from what he may be suffering, and, as already stated, some 7·5 per cent of unsuspected cases of syphilis are discovered. If the patient is suffering from gonorrhœa another blood test is done during the last week of his treatment.

During the year a special modification of the Gram method of staining has been adopted. This method is that adopted by the American Association of Bacteriologists, and the technique is described in *Gonococcal Urethritis in the Male*, Pelouze, W. B. Saunders Co., 1928. The whole procedure can be carried out in sixty

seconds, and the gonococcus stains pink or red, while the Gram positive organisms are purple or black. It is an excellent modification of the original technique and is practically fool-proof.

Again I would like to mention the accuracy of the serological tests as carried out in the Pathological Laboratory. There has been an entire absence of false positives, and the results have agreed with clinical findings. In every case where a positive is recorded in a routine unsuspected case, a confirmatory test is done.

The provocative Wassermann test has been found of extreme value. The procedure adopted is to give an intravenous injection of Stabilarisan and to do a Wassermann test every 24 hours for 7 days. It is frequently found that, for example, the first two will be negative, the third positive, the fourth doubtful, and the remainder again negative. Occasionally a strongly positive result is recorded in the series. It will be seen that, unless the whole seven specimens are examined, the positive phase may be missed. We do not consider it justifiable in this Clinic to discharge a patient as cured of syphilis unless his provocative tests done two years after the cessation of treatment are negative.

### **In-Patients.**

The hospital accommodation at the Clinic still consists of six beds only for male patients. This is utterly inadequate so far as men are concerned; and we have no means whatever of rendering in-patient treatment to women and children.



In respect of both sexes beds are urgently required. In Manchester, at Crumpsall Hospital (1,600 beds), there are 155 beds set aside for the treatment of venereal disease. I have recommended that at Hope Hospital, Pendleton, 50 beds be placed under the Venereal Diseases Officer for the treatment of patients requiring admission to hospital. This is none too many. Until such allotment is made, the scheme suffers from a grave deficiency, and many patients—especially women and children—are seriously and permanently damaged in consequence.

The number of in-patient days was 1,721 for 1929-30, as compared with 834 the previous year. The actual number of patients admitted in 1929-30 was 165 (in 1928-29 it was 66·1), and the average number of days spent in hospital was 10·43 (in 1928-29 it was 12·63).

The operating theatre has been kept busy since it was opened. The number of operations performed under general anæsthesia was 93 in 1929-30, as against 27 in the previous year. Owing to the demand for beds being greater than the supply, it is greatly to be regretted that patients have at times to be discharged to the out-patient department before that is advisable.

In certain cases of emergency in women we have had to seek beds elsewhere, and I would like to express my thanks to the Staff of St. Luke's Hospital in Manchester for the ready way in which they have taken our female patients whom we were unable to accommodate.

### **Female Department.**

Special reference must be made to the work carried out in the Female Department. It was found that the





# CHART N<sup>o</sup> 3.

1928-29

1929-30

April May June July August September October November December January February March April May June July August September October November December January February March

## FEMALE DEPARTMENT.

### Monthly Attendances.

Total attendances in **Red**

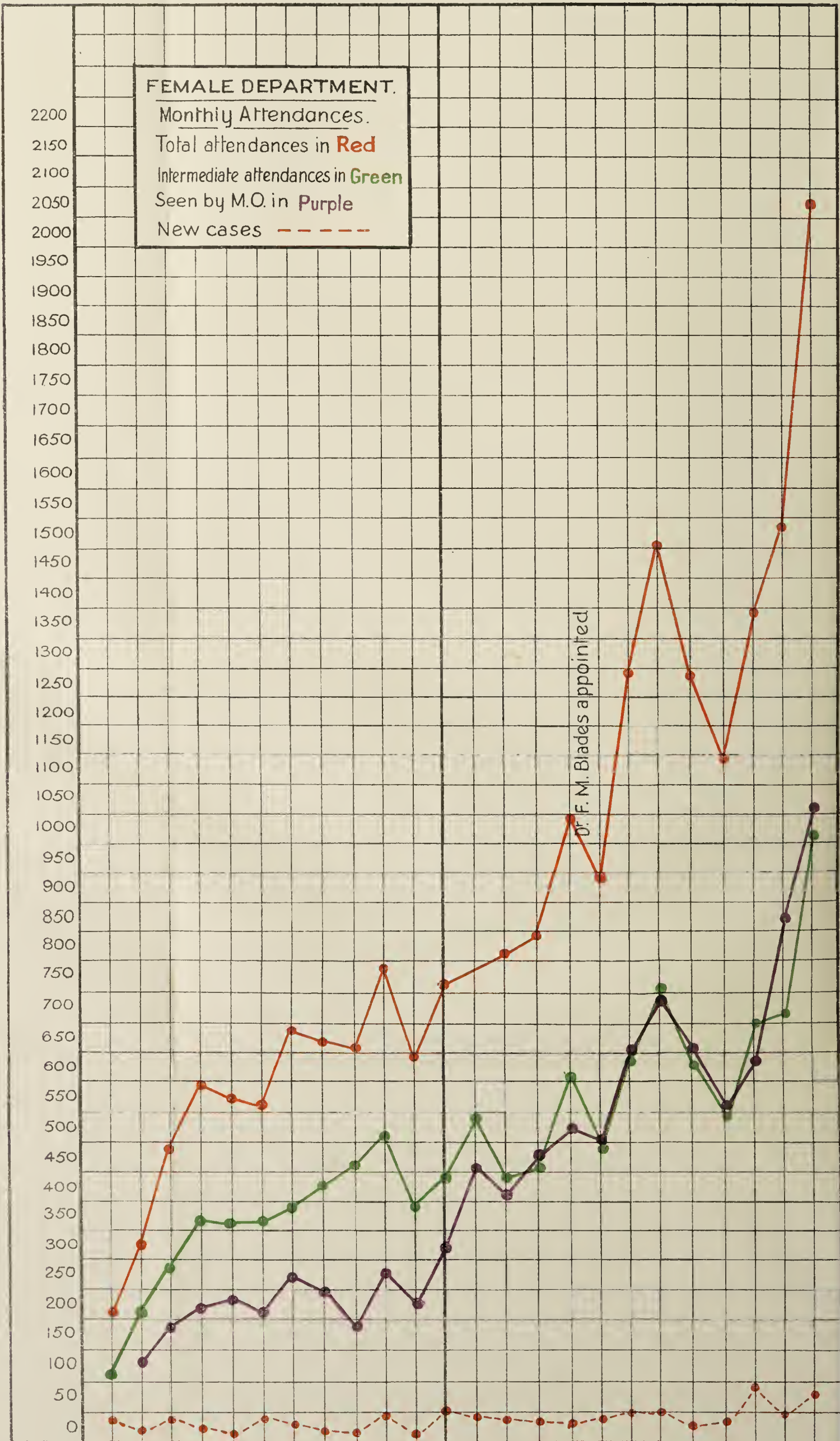
Intermediate attendances in **Green**

Seen by M.O. in **Purple**

New cases - - - - -

2200  
2150  
2100  
2050  
2000  
1950  
1900  
1850  
1800  
1750  
1700  
1650  
1600  
1550  
1500  
1450  
1400  
1350  
1300  
1250  
1200  
1150  
1100  
1050  
1000  
950  
900  
850  
800  
750  
700  
650  
600  
550  
500  
450  
400  
350  
300  
250  
200  
150  
100  
50  
0

Dr. F. M. Blades appointed





accommodation was insufficient, and certain structural alterations were recommended and carried out. This has resulted in increasing the accommodation from three to five treatment cubicles. Even now that is barely sufficient, and it is suggested that when beds become available at Hope Hospital, the present two Wards on the second floor should be converted into Medical Officers' Rooms, while the two rooms now used as such on the first floor be utilised to expand the Female Department.

The Chart No. III shows the remarkable increase in the work of the Department since the appointment of a whole-time Female Medical Officer. Apart from the lack of in-patient facilities, this branch of the Clinic is in a high state of efficiency due entirely to the energy and devotion to duty of Dr. Blades, and the support she has received from the Nursing Staff.

A feature of the period under review has been the increased number of children attending. Most of these are congenital syphilitics, the greater proportion of whom have been referred from the Eye Clinic, the Maternity and Child Welfare Department, and the School Medical Service. Although the improvement in the numbers is gratifying, yet it is felt that it does not yet reach the figure it should.

Before the Winter is reached, it is clear that in the Female Department the services of another Medical Officer and an additional nurse will be necessary.

An efficient liaison is now established between the Municipal Clinic and the other Departments under the Medical Officer of Health.



### Male Department.

In the basement, owing to the overcrowding and consequent loss of time in handling patients, seven more irrigation cubicles have had to be erected, and a similar number for instillations. These additional facilities have speeded up the work considerably, and increased the efficiency of the treatment of gonorrhœa. The problem of ventilation has been successfully solved, and, to do this, a few small structural alterations were necessary.

In the male department a few investigations have been carried out with some new preparations, for the treatment of syphilis and gonorrhœa. Apart from the adoption of Bivatol as an alternative to metallic bismuth, it has not been considered advisable to make any alteration in the medicaments hitherto in use. Mercury is never used except in the case of patients who are intolerant of arsenobenzene or bismuth.

### Propaganda.

An essential part of the Venereal Diseases Scheme is *advertisement*, and that not in a sporadic, but in a continuous and well-organised manner. The public must be made to realise the prevalence and the dangers of syphilis and gonorrhœa. There must be established a general appreciation of the fact that the conquest of these diseases is an attainable object and is in the interests of every healthy member of the community. The cost to the public purse of untreated venereal disease is infinitely greater than that of the Venereal Disease Scheme. The more remote effects of uncured syphilis and gonorrhœa cause

tremendous disability in both sexes, especially from the fourth decade of life onwards. A large proportion of the beds in general hospitals are continually occupied by the victims of undiagnosed and untreated venereal disease. Perhaps a majority—certainly a very high percentage—of the diseases peculiar to women are the sequels of gonorrhœa. An unnecessarily early death subsequent to months of ill-health and disability, too often spent in an institution, is practically inevitable in the case of infected persons who are not dealt with under a properly organised Venereal Disease Service. Another vitally important aspect is the child born with a venereal disease. Such an innocent victim is a serious burden to the community through blindness, deafness, mental deficiency, or chronic ill-health. The education of these children is more costly than in the case of normal children; many die before reaching maturity, and a large number of those that survive have to be kept at the expense of the healthy ratepayers.

The fact must be realised that the Scheme is not primarily for the infected person but for the general public health. Money spent in anti-venereal measures is money well invested, and it will show an excellent return in lower mortality, less disablement, financial gain, and an increase in the sum of human happiness. Venereal diseases are easily curable; and to bring that about, two main things are necessary—early diagnosis and adequate treatment.

The first step towards early diagnosis lies with the patient. And to every potential patient—that is, to every



adolescent both male and female—a plain statement of facts must be made. Teaching relative to the sex instinct, how it arises, its purpose, and how it may be controlled, is of far more essential importance to the individual and the species than a knowledge of the multiplication table or being able to tell upon what date William the Conqueror landed in England. Until it is realised that every extra-marital connection is fraught with grave danger, then the influx of new cases can hardly decrease. It is most certainly part of the Venereal Diseases Scheme to inculcate a high moral standard, and to place before the public all those facts of life and conduct which bear upon the problem. The teacher, the clergyman, the parent and the physician, have all their part to play.

But first of all organisation is required so that there will be neither overlapping on the one hand nor gaps left on the other. As perfect an organisation as seems possible, and certainly one which can evoke nothing but praise from every section of the community, already exists in the British Social Hygiene Council (B.S.H.C.).

It is most earnestly recommended that there should be established, at the earliest possible moment, a Salford Branch of the B.S.H.C. This should consist of a paid local Organising Secretary—a woman—trained in such work, who would give lectures to various bodies and who would be generally responsible for carrying out an intensive and continuous propaganda campaign. This Organising Secretary should be a member of the Public Health Staff and be provided with an Office in the Public Health Building, preferably at the Clinic. Such an offi-



cial exists at the Public Health Department in Birmingham, and the effect of such a post is invaluable in the interests of public health.

A local Committee should be formed, among the members of which should be the Medical Officer of Health, representatives of the Health Committee, and the Venereal Diseases Officer.

### General.

During the year 1929-30 a course of post-graduate lectures was given at the Clinic. This was well attended by some forty of the local general practitioners. A large number of those who attended performed the practical work of the Clinic, giving fifty intravenous injections and so qualifying for the free issue of arsenobenzene compounds. There are now 29 practitioners on this list, and during the period under review 85 doses have been issued to them. To Salford Royal Hospital during the same period 528 doses have been issued.

Early in 1930 I was requested to give a tutorial course in modern methods of diagnosis and treatment of venereal diseases to post-graduates who were candidates for the D.P.H. This course was given and was attended by twelve members.

In 1930 the Municipal Clinic was recognised by the Victoria University of Manchester as a teaching establishment, and I was appointed an Instructor in the diagnosis and treatment of venereal diseases to the University. A University certificate is issued to those who

attend the Courses of instruction and who duly perform the work of the Class.

Attendance at the Municipal Clinic also qualifies for a certificate to meet the requirements of the Ministry of Health relative to the appointment of a Venereal Diseases Officer. This certificate entails attendance for a period of three months, during which 150 hours of instruction in modern methods of diagnosis and treatment must be given. All the above teaching work is, of course, unpaid. There is no other Clinic in England, outside of London, which possesses such a wealth of clinical material for teaching purposes—and teaching is one of the most important functions of any Clinic.

Patients are not demonstrated before a Class except with their express permission, and if a patient does not wish to be recognised, he wears a mask. In only one instance has a patient refused to be demonstrated. In all other instances extreme willingness has been shown, the patient realising that the inconvenience entailed to himself is to help others in the future.

It is very gratifying to record the use which is being made of the Clinic by local practitioners, and by others from outside areas, such as Blackpool, Wigan, Tyldesley, Oldham and Manchester. Cases are being sent for diagnosis and treatment at an earlier stage than formerly. The standard of diagnosis in private practice has improved and so likewise has the treatment. In view of this, it is proposed to offer another Course of Lectures and Demonstrations during the winter of 1930-31. As a result of the first Course, a number of practitioners are now treating their own cases of venereal disease—

and are treating them upon modern and efficient lines. This operates towards relieving the clinic of expenditure.

At the Annual Meeting of the British Medical Association in Manchester, I was chosen to be a Vice-President of the Venereal Diseases Section. Circumstances were such that it was not possible to exhibit the Clinic and demonstrate cases before the Section, yet several members paid us a visit and were very interested in the arrangements. One interesting case of Malignant Syphilis was demonstrated by Dr. Purcell at the Skin Hospital.

The following propaganda and scientific work has been or is being carried out by members of the Staff :—

- (1) Analysis and tabulation of records in the Male Department.

(Dr. Purcell.)

- (2) Analysis and tabulation of records in the Female Department.

(Dr. Florence Blades).

- (3) Propaganda lectures to audiences seeing films dealing with Venereal Disease.

- (4) Various letters to local press relative to transport drivers and Venereal Disease.

- (5) Address on " Syphilis and the General Practitioner " to the Wigan Branch of the British Medical Association.



- (6) Address on " The Control of Venereal Diseases " to N.W. Branch of Society of Medical Officers of Health, Manchester.
- (7) Address on " Syphilis, with Special Reference to the Hairdressing Profession " to the National Conference of Hairdressers in Manchester.
- (8) Paper on " Treatment of Wassermann—fast Syphilis " read before the Medical Society for the Study of Venereal Diseases, London.
- (9) Article : " Cardio-vascular Syphilis." *British Journal of Venereal Diseases*, April, 1929.
- (10) Review : " Sex Problem in India." *Ibid*, July, 1929.
- (11) Review : " Text-book of Syphilis." *Ibid*, October, 1929.
- (12) Review : " Treatment of Syphilis." *Ibid*, April, 1930.
- (13) Investigation re therapeutic efficiency of several new bismuth compounds.

# Venereal Diseases—APPENDIX I.

RETURN RELATING TO ALL PERSONS TREATED AT THE MUNICIPAL CLINIC DURING THE YEAR ENDED 31ST DECEMBER, 1929.

INFECTIOUS DISEASES.

177

|                                                                                                                                                                                                                          | Syphilis. |          | Soft Chancre. |          | Gonorrhoea. |          | Conditions other than Venereal. |          | Total. |          |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------|----------|---------------|----------|-------------|----------|---------------------------------|----------|--------|----------|
|                                                                                                                                                                                                                          | Males.    | Females. | Males.        | Females. | Males.      | Females. | Males.                          | Females. | Males. | Females. |
| 1. Number of cases which—<br>(a) at the beginning of the year under report were under treatment or observation for .....                                                                                                 | 100       | 21       | 2             | ..       | 233         | 55       | 35                              | 5        | 370    | 81       |
| (b) had been marked off in a previous year as having ceased to attend or as transferred to other Centres, and which returned to the Treatment Centre during the year under report suffering from the same infection..... | 9         | 4        | ..            | ..       | 14          | 2        | ..                              | ..       | 23     | 6        |
| Total—Items 1 (a) and 1 (b) .....                                                                                                                                                                                        | 109       | 25       | 2             | ..       | 247         | 57       | 35                              | 5        | 393    | 87       |
| 2. (a) Number of cases dealt with at the Treatment Centre during the year for the first time with infections of:                                                                                                         |           |          |               |          |             |          |                                 |          |        |          |
| 1. less than one year's standing                                                                                                                                                                                         | 173       | 37       | 20            |          | 639         | 86       | 516                             | 220      | 1348   | 343      |
| 2. more than one year's standing                                                                                                                                                                                         | 144       | 46       |               |          | 18          |          |                                 |          | 162    | 46       |
| Total—Items 1 (a), 1 (b) and 2 (a)...                                                                                                                                                                                    | 426       | 108      | 22            | ..       | 904         | 143      | 551                             | 225      | 1903   | 476      |
| 2. (b) Number of cases included in Item 2 (a) known to have received previous treatment at other Centres for the same infection .....                                                                                    | 25        | ..       | ..            | ..       | 34          | ..       | 2                               | 1        | 61     | 1        |
| 3. Number of cases which ceased to attend—                                                                                                                                                                               |           |          |               |          |             |          |                                 |          |        |          |
| (a) before completing the first course of treatment for...                                                                                                                                                               | 66        | 20       | 3             | ..       | 150         | 33       | 55                              | 25       | 274    | 78       |
| (b) after one or more courses but before completion of treatment for .....                                                                                                                                               | 1         | ..       | ..            | ..       | 41          | 6        | ..                              | ..       | 42     | 6        |
| (c) after completion of treatment, but before final tests as to cure of .....                                                                                                                                            | 10        | ..       | ..            | ..       | 61          | 2        | ..                              | ..       | 71     | 2        |





## APPENDIX II.

### STANDARD COURSES FOR THE TREATMENT OF SYPHILIS IN THE VENEREAL DISEASES TREATMENT CENTRE.

#### CITY OF SALFORD.

#### EARLY SYPHILIS.

##### Course No. I.

##### FIRST DEGREE SYPHILIS (Sero-Negative Primary).

*Treponema pallidum* present.

*Blood-Wassermann* negative.

|             |                         |       |       | Total. |               |
|-------------|-------------------------|-------|-------|--------|---------------|
|             |                         |       |       | Stab.  | Bi-Metal.     |
| Stabilarsan | once weekly for 6 weeks | ..... | 3.45  | —      |               |
| Bivatol     | twice                   | „ 4 „ | ..... | —      | 0.64          |
| Stabilarsan | once                    | „ 6 „ | ..... | 3.45   | —             |
| Bivatol     | twice                   | „ 4 „ | ..... | —      | 0.64          |
| Stabilarsan | once                    | „ 6 „ | ..... | 3.45   | —             |
| Total       |                         |       |       | 10.35  | 1.28 grammes. |

Blood-Wassermann test 7 days after last injection.

If *positive*, treat as Endosyphilis and give Course No. V.

If *negative*, discontinue treatment and apply test for Cure.

CRITERIA OF CURE.—Give iodides for two weeks preceding each Wassermann test. A negative blood-Wassermann should be obtained every three months for one year after the cessation of treatment. Two years after the cessation of treatment, the blood and cerebro-spinal fluid (C.S.F.) must be negative after provocation.

If at any time during the observation period for cure, the blood becomes positive, treat as Endosyphilis and give Course No. V.

Course No. II.

SECOND DEGREE SYPHILIS.  
(Sero-Positive Primary).

*Treponema pallidum* present.  
*Blood-Wassermann* positive.

|             |                         |   |   |         | Total. |               |
|-------------|-------------------------|---|---|---------|--------|---------------|
|             |                         |   |   |         | Stab.  | Bi-Metal.     |
| Stabilarsan | once weekly for 8 weeks |   |   | .....   | 4.65   | —             |
| Bivatol     | twice                   | „ | 8 | „ ..... | —      | 1.28          |
| Stabilarsan | once                    | „ | 8 | „ ..... | 4.65   | —             |
| Bivatol     | twice                   | „ | 8 | „ ..... | —      | 1.28          |
| Stabilarsan | once                    | „ | 2 | „ ..... | 1.05   | —             |
| Total ..... |                         |   |   |         | 10.35  | 2.56 grammes. |

Blood and C.S.F. Wassermann tests seven days after last injection.

If blood-Wassermann is *positive*, treat as Endosyphilis and give Course No. V.

If C.S.F. is *positive*, treat as Neurosyphilis and give Course No. VII.

If both blood and C.S.F. are *negative*, discontinue treatment and apply tests for cure.

CRITERIA OF CURE.—As in Course No. 1.

Course No. III.

THIRD DEGREE SYPHILIS.  
(Early Secondary).

*Blood-Wassermann* positive.  
*General Cutaneous eruption*.

|             |                         |   |   |         | Total. |               |
|-------------|-------------------------|---|---|---------|--------|---------------|
|             |                         |   |   |         | Stab.  | Bi-Metal.     |
| Stabilarsan | once weekly for 8 weeks |   |   | .....   | 4.65   | —             |
| Bivatol     | twice                   | „ | 6 | „ ..... | —      | 0.96          |
| Stabilarsan | once                    | „ | 8 | „ ..... | 4.65   | —             |
| Bivatol     | twice                   | „ | 6 | „ ..... | —      | 0.96          |
| Stabilarsan | once                    | „ | 8 | „ ..... | 4.65   | —             |
| Bivatol     | twice                   | „ | 4 | „ ..... | —      | 0.64          |
| Total ..... |                         |   |   |         | 13.95  | 2.56 grammes. |

A blood and C.S.F. Wassermann is done one week after the last injection. If the blood is *positive*, treat as Endosyphilis, and give Course No. V. If it is *negative*, discontinue treatment.

If C.S.F. is *positive*, treat as Neurosyphilis and give Course No. VII. If *negative*, discontinue treatment.

CRITERIA OF CURE.—As before.

*Course No. IV.*

FOURTH DEGREE SYPHILIS  
(Late Secondary).

*Blood-Wassermann positive.*

*Fading General cutaneous eruption.*

*C.S.F. Negative.*

|                            |                         |       |       |               | Total. |           |
|----------------------------|-------------------------|-------|-------|---------------|--------|-----------|
|                            |                         |       |       |               | Stab.  | Bi-Metal. |
| Stabilarsan                | once weekly for 8 weeks | ..... | 4.65  | —             |        |           |
| Bivatol                    | twice „ 8 „             | ..... | —     | 1.28          |        |           |
| (Iodides for last 2 weeks) |                         |       |       |               |        |           |
| Stabilarsan                | once weekly for 8 „     | ..... | 4.65  | —             |        |           |
| Bivatol                    | twice „ 8 „             | ..... | —     | 1.28          |        |           |
| (Iodides for last 2 weeks) |                         |       |       |               |        |           |
| Stabilarsan                | once weekly for 8 „     | ..... | 4.65  | —             |        |           |
| Bivatol                    | twice „ 8 „             | ..... | —     | 1.28          |        |           |
|                            |                         |       |       |               |        |           |
| Total                      | .....48 „               |       | 13.95 | 3.84 grammes. |        |           |

A blood and C.S.F. Wassermann is done one week after the last injection. If the blood is *positive*, and the C.S.F. *negative*, repeat the above course. If, however, the C.S.F. is *positive*, treat as Neurosyphilis and give Course No. VII.

If the blood and C.S.F. are both *negative*, discontinue treatment.

CRITERIA OF CURE.—As before.



LATE SYPHILIS.

Course No. V.

FIFTH DEGREE SYPHILIS.

(Endosyphilis).

*Uncured cases without symptoms except a positive blood-Wassermann ;  
C.S.F. negative (if C.S.F. is positive, treat as Neurosyphilis and  
give Course No. VIII.*

|                                     |       |       |       | Total. |               |
|-------------------------------------|-------|-------|-------|--------|---------------|
|                                     |       |       |       | Stab.  | Bi-Metal.     |
| Stabilarsan once weekly for 8 weeks | ..... |       | 4.65  | —      |               |
| (Iodides for last 4 weeks)          |       |       |       |        |               |
| Bivatol twice weekly for 8          | „     | ..... | —     | 1.28   |               |
| Stabilarsan once                    | „ 8   | „     | ..... | 4.65   | —             |
| Bivatol twice                       | „ 8   | „     | ..... | —      | 1.28          |
| (Iodides for last 4 weeks)          |       |       |       |        |               |
| Stabilarsan once weekly for 8       | „     | ..... | 4.65  | —      |               |
| Bivatol twice                       | „ 8   | „     | ..... | —      | 1.28          |
| Stabilarsan once                    | „ 8   | „     | ..... | 4.65   | —             |
| Total .....                         |       |       |       | 56     | „             |
|                                     |       |       |       | 18.60  | 3.84 grammes. |

A blood and C.S.F. Wassermann is done one week after the last injection. If both are *negative*, cease the treatment. If C.S.F. is *positive*, treat as Neurosyphilis and give Course No. VII. If blood is *positive*, repeat Course No. V.

CRITERIA OF CURE.—As before.

Course No. VI.

SIXTH DEGREE SYPHILIS.

(Tertiary and Quaternary Syphilis).

*Skin, bone and mucous membrane asymmetrical lesions ; vascular and  
visceral involvement. Blood-Wassermann positive. C.S.F. negative  
(If C.S.F. is positive, treat as Neurosyphilis and give  
Course No. VII.).*

|                                     |       |       |   | Total. |               |
|-------------------------------------|-------|-------|---|--------|---------------|
|                                     |       |       |   | Stab.  | Bi-Metal.     |
| Stabilarsan once weekly for 8 weeks | ..... |       |   | 4.56   | —             |
| (Iodides for last 4 weeks)          |       |       |   |        |               |
| Bismuth twice weekly for 8          | „     | ..... |   | —      | 1.28          |
| Stabilarsan once                    | „     | 8     | „ | 4.65   | —             |
| Bismuth twice                       | „     | 8     | „ | —      | 1.28          |
| (Iodides for last 4 weeks)          |       |       |   |        |               |
| Stabilarsan once weekly for 8       | „     | ..... |   | 4.65   | —             |
| Bismuth twice                       | „     | 8     | „ | —      | 1.28          |
| (Iodides for last 4 weeks)          |       |       |   |        |               |
| Stabilarsan once weekly for 8       | „     | ..... |   | 4.65   | —             |
| Bivatol twice                       | „     | 8     | „ | —      | 1.28          |
| (Iodides for last 4 weeks)          |       |       |   |        |               |
| Stabilarsan once weekly for 8       | „     | ..... |   | 4.65   | —             |
| Total .....                         |       |       |   | 23.25  | 5.12 grammes. |

A blood and C.S.F. Wassermann is done one week after the last injection. If both are *negative*, cease treatment. If C.S.F. is *positive*, treat as Neurosyphilis and give Course No. VII. If blood is *positive*, give Course No. V.

CRITERIA OF CURE.—As before.

Course No. VII.

SEVENTH DEGREE SYPHILIS  
(Neurosyphilis).

*Tabes dorsalis ; General Paralysis ;*  
*Cerebro-spinal Syphilis.*  
*C.S.F. positive ;*  
*Colloidal gold test positive ;*  
*Cell count increased.*

|                                              |                          |                                                |
|----------------------------------------------|--------------------------|------------------------------------------------|
| Bivatol                                      | twice weekly for 8 weeks | } Dosage varies<br>with Clinical<br>condition. |
| Tryparsamide or                              |                          |                                                |
| Myosalvarsan once                            | „ 8 „                    |                                                |
| <i>Lumbar drainage after last injection)</i> |                          |                                                |
| Iodides                                      | .....for 4 weeks         |                                                |

Repeat the above Courses till the cerebro-spinal fluid becomes serologically and cytologically normal.

A patient with Neurosyphilis must continue with treatment at frequent intervals for the remainder of life, no matter how long the cerebro-spinal fluid has been *negative*. Where possible, all cases of Neurosyphilis should be treated with Malaria inoculations.

Course No. VIII.  
EIGHTH DEGREE SYPHILIS  
(Congenital Syphilis).

| 1st Year.                                 | Under five years of age. |                                            |
|-------------------------------------------|--------------------------|--------------------------------------------|
| Bismuth inunctions daily for 1 month      |                          | } Dosage varies<br>with age of<br>patient. |
| Myosalvarsan intramuscularly for 2 months |                          |                                            |
| Bivatol                                   | 3 "                      |                                            |
| Myosalvarsan                              | 3 "                      |                                            |
| Bivatol                                   | 2 "                      |                                            |
| Iodides                                   | 1 month                  |                                            |
| Total . . . . . 12 months.                |                          |                                            |

For each of the succeeding four years, give two courses of treatment, each extending over a period of four months.

|                           |                             |                                            |
|---------------------------|-----------------------------|--------------------------------------------|
| Bivatol                   | intramuscularly for 1 month | } Dosage varies<br>with age of<br>patient. |
| Myosalvarsan              | 1 "                         |                                            |
| Bivatol                   | 1 "                         |                                            |
| Myosalvarsan              | 1 "                         |                                            |
| Total . . . . . 4 months. |                             |                                            |

If at the end of five years Wassermann is *negative*, treatment is discontinued. If *positive*, give Course No. V.

Over five years of age.—Give Course No. V.



## SECTION IV.

# Medical Inspection of Schools.

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## Staff.

Medical Officer to the Education

Committee ..... H. OSBORNE, M.D., M.R.C.S., D.P.H.,  
(Also Medical Officer of Health) etc.

Assistant Medical Officers ..... { H. HEATHCOTE, M.D., D.P.H (Senior.)  
G. HEATHCOTE, M.B., Ch.B.  
W. B. MCKELVIE, M.D., F.R.C.S.E., etc.  
J. L. BRADLEY, M.B., Ch.B., etc.  
(Appointed May).

School Ophthalmic Officer ..... D. SIMMONS (Miss), M.B., Ch.B.

School Dentists ..... { H. MALLINSON, L.D.S., F.P.S.  
A. E. SHERRATT, L.D.S., R.C.S.  
A. V. LITTLEWOOD, L.D.S.

## SCHOOL NURSES

Miss L. N. HOPSON (Superintendent).

|                      |                  |
|----------------------|------------------|
| Miss G. WILLIAMS.    | Miss H. ELLIOTT. |
| „ R. LEE.            | „ W. M. MELLOR.  |
| „ C. WEIR.           | „ E. CLEMENTS.   |
| Mrs. A. G. WILLMOTT. | „ E. HARLEY.     |
| Miss M. MOORE.       | „ G. BOOTH.      |
| „ A. HAIRS.          | „ M. SALVIDGE.   |
| „ A. ROWLAND.        | „ G. E. HINDLEY. |

## CLERICAL STAFF

Mr. J. A. DARBYSHIRE (Senior).

|                    |                 |
|--------------------|-----------------|
| Miss D. M. BARNES. | Miss P. HODGE.  |
| „ E. FRIESER.      | „ F. C. GLEESON |
| „ E. BARLOW.       | „ A. OWEN.      |
| „ D. LEECH.        | „ E. HALL.      |
| „ M. GRUNDY.       |                 |

### Co-ordination.

(a) INFANT AND CHILD WELFARE.—Medical records are transferred from the Child Welfare Department to the School Medical Department when children attain school age. As the two Child Welfare Centres at Regent Road and Teneriffe Street are housed in the same buildings as the two School Clinics co-operation of the two departments is further assured.

(b) NURSERY SCHOOLS.—The Child Welfare Medical Officer pays weekly visits to the Nursery School for the purpose of examining the children.

(c) DEBILITATED CHILDREN under school age are dealt with in the Child Welfare Department.

### School Hygiene.

Much of the work of medical treatment of school children would be unnecessary if it were possible to concentrate more upon the preventive side of the problem. For instance, a good deal of visual defect and eye strain might be avoided if the lighting in all the schools was what it ought to be. In the same way, there is being manufactured in crowded and insufficiently ventilated classrooms much of the material with which open air schools are filled. Similarly, defective hygiene is responsible to a large extent for the spread of epidemic infectious disease among school children. If all the schools were more on open air lines there would, surely, be a great falling-off in the incidence of infectious disease. It is true, procedure can only be slow in this direction because of the great cost involved, but

it is well that the preventive aspect of the problem should not be lost sight of.

With regard to the new schools at present under contemplation, it will be the Committee's policy to provide classrooms on the lines of the Open Air Schools, where the character of site and other conditions permit.

As regards sanitation the schools were regularly visited by the Sanitary Inspectors, who have paid altogether 529 visits. Improvement in the sanitary condition of outside offices, yards, etc., has been maintained.

|                                              |     |
|----------------------------------------------|-----|
| Sanitary Inspectors' Visits to Schools ..... | 529 |
| Defects Found .....                          | 8   |
| Cisterns defective .....                     | 2   |
| Surface water gullies defective .....        | 2   |
| Branch drain choked .....                    | 1   |
| Drains in basement defective.....            | 1   |
| Quantity of debris in wall recess .....      | 1   |
| Urinal Dirty .....                           | 1   |
|                                              | —   |
|                                              | 8   |

### Routine Medical Inspection.

School Doctors visit the whole of the Elementary Schools of the City for the purpose of medical inspection.

The Routine Inspection comprises three age groups of children, namely, children of five years, eight years and twelve years of age ; these are the " Code Groups "



examined every year, so that each child should be medically examined at least three times during its school career.

(A) ROUTINE MEDICAL INSPECTION IN THE SCHOOLS BY  
THE MEDICAL INSPECTORS.

The arrangements for routine medical inspection are as follows :—

Each school is notified some weeks in advance of medical inspection, the Head Teacher receiving a form requesting a return of the numbers of children of the three Code Groups on the Register. A further notification of the actual date of inspection is later forwarded to the teacher, the notification being accompanied by printed forms for the invitation of parents to be present at the inspection. These invitation forms give the hour as well as the date of inspection, and so obviate unnecessary waiting of parents on the school premises.

At each inspection the Medical Officer has the assistance of a School Nurse.

The School Nurse weighs and measures the children, tests vision with the ordinary types, and loosens the child's clothing for the doctor.

The School Medical Inspectors enter all details of medical inspection on the cards in the schools.

Parents present at the inspection are, of course, notified directly of any defect discovered, and they are advised as to the necessary treatment.

The work of following up by Attendance Officers has now been replaced by re-examination of such cases by the Medical Inspectors at the Inspection Clinics, and also by home visits carried out by the School Nurses.

(B) INSPECTION IN THE SCHOOLS BY NURSES.

One of the most important duties of the School Nurse is to visit the schools for the purpose of "cleanliness inspection."

On such occasions the whole of the children in attendance at a given school are submitted to inspection by the School Nurse, all heads being rapidly examined for Pediculosis, and in suspected cases the bodies also. A classification of the children's heads is made :—

A.—Signifying freedom from vermin or nits.

B.—The presence of a few nits only.

C.—The presence of a large number of nits or live vermin.

Class B children are given marked cards with warning and instructions, but are not excluded from school.

Class C children are given marked cards and are also excluded from school for 24 hours, when they are re-examined by the Nurse. In the latter case if it is found that the warning has been neglected, verminous notices are issued and the case dealt with according to Section 87 of the Education Act, 1921.

At the present time the aim is to submit every school in the City to "cleanliness inspection" three times during the year. This means, in practice, the inspection of every school for this purpose during the period—

- (a) From the beginning of the year to Easter ;
- (b) from Easter to the Midsummer Holidays ;
- (c) from the Midsummer Holidays to the end of the year.

This aim has been accomplished during the past year, when 92,632 "cleanliness inspections" were carried out by the School Nurses.

Subsequent to the visits of the Nurses to the schools for "cleanliness inspection," the schools are notified of the results of such inspection, and a notice is posted up showing the number of children classified A, B and C. This procedure is believed to have a stimulating effect.

In addition to periodical visits for "cleanliness inspection," special visits are paid by the Nurses at the request of the teacher for the specific purpose of examining children suspected of harbouring vermin or of suffering from contagious skin disease, etc.

Again, the Nurses visit schools during epidemic outbreak, and in this connection the Nurse with special fever training and experienced in throat examinations is useful.

### (C) THE INSPECTION CLINICS.

Three Medical Officers now attend each afternoon, and one each morning, for the purpose of examining "special cases." These include—

- (1) Cases referred by the Medical Officers themselves in the course of routine medical inspection in the schools.



- (2) Cases referred by School Nurses from the schools.
- (3) Cases referred by School Teachers.
- (4) Cases referred by the Attendance Officers.
- (5) Cases in which medical examination is requested by the parents.

With reference to these examinations it is necessary to issue a fixed number of invitations for each session, the number varying according to the type of case, otherwise the Medical Officers would be overwhelmed on some occasions.

The Inspection Clinic serves a number of purposes.

First of all, it serves as a clearing house for children referred from different sources. For instance, cases with defects are advised as to the necessity for treatment, and are sent to the family doctor, where such exists. Otherwise, cases are sent to one of the Voluntary Hospitals, or are dealt with under the Local Authority's scheme; needy cases requiring operation are referred to hospital, minor ailments are sent to the Minor Ailments Clinic, oral sepsis to the Dental Clinic, visual defects to the Eye Clinic, scalp ringworm to the X-ray Clinic, and Alopecia to the High Frequency Clinic.

Secondly, the Inspection Clinic serves as a Court of Appeal for children booked by the Attendance Officer for absence from school on the grounds of alleged ill-health.

Thirdly, it plays a great part in the "following up" of cases referred for treatment, especially where such is not obtained under the Local Authority's scheme, invita-

tion to attend the Inspection Clinic for re-examination being issued a certain period after the recommendation for treatment. Here the "following up" is done by the Medical Officer himself.

Fourthly, the Inspection Clinic serves for the examination and grading of exceptional children, such as mentally defective, etc.

Fifthly, it serves as a discharging centre for cases previously excluded on medical grounds. For instance, no case of scalp ringworm once excluded from school may be re-admitted until officially discharged and certified "fit for school" by the School Medical Officer.

During the year 1929 the total number of examinations of children at the Inspection Clinics was 19,252.

### **Findings of Medical Inspection.**

#### **Uncleanliness.**

Children's heads and bodies were examined for Pediculosis on the occasion of the Nurses' visits to schools, when children of all ages were submitted to examination.

The number of children examined by the Nurses in the elementary schools totalled 92,632.

The Nurses have been able to visit all the schools in the City on three separate occasions during the year for the purpose of "cleanliness inspection," and the standard of cleanliness now adopted is very strict.

Tables showing prevalence of Pediculosis are hereby appended :—

TABLES SHOWING PREVALENCE OF PEDICULOSIS IN DEPARTMENTS WHERE ALL THE SCHOLARS PRESENT WERE EXAMINED BY THE SCHOOL NURSES.

INFANTS' DEPARTMENTS.

|                                | BOYS.           |        |      |     |                           | GIRLS.          |        |       |      |                           |
|--------------------------------|-----------------|--------|------|-----|---------------------------|-----------------|--------|-------|------|---------------------------|
|                                | No.<br>examin'd | Heads. |      |     | Ver-<br>minous<br>bodies. | No.<br>examin'd | Heads. |       |      | Ver-<br>minous<br>bodies. |
|                                |                 | *A.    | B.   | C.  |                           |                 | *A.    | B.    | C.   |                           |
| (A)<br>Aggregate<br>Numbers .. | 14911           | 14010  | 768  | 133 | 33                        | 14681           | 10590  | 3420  | 671  | 30                        |
| (B)<br>Percentages ..          | —               | 93·96  | 5·15 | ·89 | —                         | —               | 72·13  | 23·30 | 4·57 | —                         |

UPPER DEPARTMENTS.

|                                | BOYS.           |        |      |     |                           | GIRLS.          |        |       |      |                           |
|--------------------------------|-----------------|--------|------|-----|---------------------------|-----------------|--------|-------|------|---------------------------|
|                                | No.<br>examin'd | Heads. |      |     | Ver-<br>minous<br>bodies. | No.<br>examin'd | Heads. |       |      | Ver-<br>minous<br>bodies. |
|                                |                 | *A.    | B.   | C.  |                           |                 | *A.    | B.    | C.   |                           |
| (A)<br>Aggregate<br>Numbers .. | 32317           | 30893  | 1158 | 266 | 135                       | 30723           | 23460  | 6207  | 1056 | 58                        |
| (B)<br>Percentages ..          | —               | 95·59  | 3·59 | ·82 | —                         | —               | 76·36  | 20·20 | 3·44 | —                         |

\* Heads A—Where neither vermin nor nits are present.  
B—Containing a small number of nits only.  
C—Containing live vermin or numerous nits.

The accompanying Table shows the work done under Section 87 of the Education Act, 1921:—

| BOYS.                                        |              |               |                                                       |                         | GIRLS.                                       |              |               |                                                       |                         |
|----------------------------------------------|--------------|---------------|-------------------------------------------------------|-------------------------|----------------------------------------------|--------------|---------------|-------------------------------------------------------|-------------------------|
| Number of<br>Cleansing<br>Notices<br>Served. | Hair Cut.    |               | Cleansed at<br>Mole Wheel<br>Disinfecting<br>Station. | Cleansed<br>at<br>Home. | Number of<br>Cleansing<br>Notices<br>Served. | Hair Cut.    |               | Cleansed at<br>Mole Wheel<br>Disinfecting<br>Station. | Cleansed<br>at<br>Home. |
|                                              | By<br>Nurse. | By<br>Parent. |                                                       |                         |                                              | By<br>Nurse. | By<br>Parent. |                                                       |                         |
| 99                                           | 19           | 57            | 13                                                    | 23                      | 654                                          | 361          | 287           | 5                                                     | 14                      |



### **Tonsils and Adenoids.**

In routine cases 1,239 were found to be suffering from enlarged tonsils or adenoids, or both, whilst in addition 1,757 special cases were found with the same condition. As in previous years, it was found that a number of cases of enlarged tonsils were temporary in character, the condition disappearing in a short period of time, thus emphasising the importance of re-examining all these cases after an interval of a month or so before deciding on surgical measures.

### **Tuberculosis.**

Amongst the inspection cases there were 125 children diagnosed as suffering from tuberculosis, 16 being fairly definite, and 109 suspected cases. At the same time there were very few advanced cases of phthisis, the majority being probably chiefly confined to the bronchial or mediastinal lymphatic glands and giving rise to indefinite physical signs, although the children were obviously suffering from the effects of toxic absorption, such as languor, anorexia, loss of flesh, night sweats, etc. The majority of such children are adversely affected by compulsory attendance at an ordinary school.

The Committee have fully realised the necessity for further Open Air School provision, and there are now in the City two Open Air Schools for the reception of delicate children.

### **Ringworm.**

Cases of ringworm are notified by Teachers and Attendance Officers, as well as by the Medical Inspection

Staff. All cases are invited to attend periodically at the Centre for inspection, and no child who has been known to have ringworm is allowed to return to school without a certificate from the Medical Officer.

During the year 1929, 43 new cases of scalp ringworm and 72 cases of body ringworm have been under supervision at the Inspection Clinic, and the total number of examinations in these cases amounted to 337.

### Alopecia.

There have been 63 new cases under supervision at the Inspection Centre, with a total of 163 examinations.

### The Treatment of Alopecia by the High Frequency Current.

The use of the high frequency current has been continued during 1929. The children are now instructed to attend three times a week, as owing to other demands on the nurses' time, it has been found impossible to give the treatment daily. The high frequency current ( $\frac{1}{4}$  inch spark) is given for five minutes, which is sufficient to produce a slight reddening of the affected area. The treatment is of considerable value in the more obstinate type of case, and the application is painless. All other treatment, *e.g.*, lotion, is stopped while the child is being treated by the high frequency current.

Six boys and two girls were under treatment in 1929.

### **Eczema, Impetigo and Sores.**

The number of new cases of these diseases under observation during the past year was 2,777 and the number of examinations 6,577.

### **Scabies.**

There were 129 cases under supervision and 343 examinations.

### **External Eye Disease.**

The bulk of the cases of external eye disease found on inspection, as usual, proved to be conjunctivitis or blepharitis of a fairly mild type.

There have been no serious outbreaks of ophthalmia in any of the schools. The practice adopted is to exclude every case of conjunctivitis in which there is possibility of infection.

### **Vision.**

Routine medical inspection in the case of the eight-year-old group and twelve-year-old group includes the testing of vision by means of the usual types at a distance of six metres. Children whose distant vision is represented by 6/18 or worse, also any children who appear to be suffering from the effects of eye strain, or children of five years suffering from strabismus, are all referred for examination at the Refraction Clinic by the Eye Specialist.

During the year under consideration, 1,570 cases have been referred for examination at the Refraction Clinic.



### Ear Disease and Hearing.

The great majority of cases of ear disease met with in routine inspection are children suffering from suppurating discharge from the middle ear. These are the cases which in the old days were generally allowed to go untreated, and they often became very offensive for want of attention.

One thousand one hundred and ninety-six cases were met with by the Medical Inspectors and most of these were dealt with at the School Clinics.

### Dental Defects.

The following Tables show (a) the number of sound and decayed teeth (both temporary and permanent) and (b) the actual state of teeth and gums, and the grinding capacity; (c) the actual number of decayed teeth, *per child*, among the children examined by the School Dentists.

TABLE A.  
ROUTINE DENTAL INSPECTION.

|                    | Age.      | Number<br>examined. | TEMPORARY TEETH    |                       |                    |                       | PERMANENT TEETH.   |                       |                    |                       |
|--------------------|-----------|---------------------|--------------------|-----------------------|--------------------|-----------------------|--------------------|-----------------------|--------------------|-----------------------|
|                    |           |                     | Number<br>present. | Average<br>per child. | Number<br>decayed. | Average<br>per child. | Number<br>present. | Average<br>per child. | Number<br>decayed. | Average<br>per child. |
| Boys               | 6         | 1359                | 23757              | 17.48                 | 8930               | 6.57                  | 4901               | 3.61                  | 235                | .17                   |
|                    | 7         | 1487                | 20765              | 13.96                 | 8825               | 5.93                  | 10917              | 7.34                  | 769                | .51                   |
|                    | 8         | 1522                | 16731              | 10.99                 | 7877               | 5.17                  | 15785              | 10.37                 | 1157               | .76                   |
|                    | 9         | 1656                | 14005              | 8.46                  | 6780               | 4.09                  | 21369              | 12.90                 | 1602               | .97                   |
|                    | 10        | 926                 | 5556               | 6.00                  | 2700               | 2.91                  | 14695              | 15.87                 | 1093               | 1.18                  |
|                    | 11        | 777                 | 2671               | 3.44                  | 1331               | 1.71                  | 15267              | 19.65                 | 1127               | 1.45                  |
|                    | 12        | 593                 | 1057               | 1.78                  | 593                | 1.00                  | 13447              | 22.68                 | 941                | 1.59                  |
|                    | 13        | 475                 | 421                | .88                   | 234                | .49                   | 11827              | 24.90                 | 868                | 1.83                  |
|                    | 14        | 52                  | 14                 | .27                   | 11                 | .21                   | 1371               | 26.36                 | 80                 | 1.54                  |
|                    | Total ... | 8847                | 84977              | 9.60                  | 37281              | 4.21                  | 109579             | 12.39                 | 7872               | .89                   |
| Girls              | 6         | 1264                | 21361              | 16.90                 | 7514               | 5.94                  | 5552               | 4.39                  | 300                | .24                   |
|                    | 7         | 1452                | 19188              | 13.21                 | 8276               | 5.70                  | 12283              | 8.46                  | 864                | .60                   |
|                    | 8         | 1482                | 15041              | 10.15                 | 7093               | 4.79                  | 17054              | 11.51                 | 1318               | .89                   |
|                    | 9         | 1565                | 11264              | 7.20                  | 5533               | 3.54                  | 22686              | 14.49                 | 1784               | 1.14                  |
|                    | 10        | 873                 | 3967               | 4.54                  | 2040               | 2.34                  | 15639              | 17.91                 | 1138               | 1.30                  |
|                    | 11        | 749                 | 1684               | 2.25                  | 922                | 1.23                  | 16097              | 21.49                 | 1128               | 1.51                  |
|                    | 12        | 577                 | 638                | 1.11                  | 366                | .63                   | 14051              | 24.35                 | 1016               | 1.76                  |
|                    | 13        | 418                 | 259                | .62                   | 146                | .35                   | 10711              | 25.62                 | 802                | 1.92                  |
|                    | 14        | 31                  | 4                  | .13                   | 2                  | .06                   | 829                | 26.74                 | 55                 | 1.77                  |
|                    | Total ... | 8411                | 73406              | 8.73                  | 31892              | 3.79                  | 114902             | 13.66                 | 8405               | 1.00                  |
| Boys and Girls ... |           | 17258               | 158383             | 9.17                  | 69173              | 4.01                  | 224481             | 13.01                 | 16277              | .94                   |

TABLE B.  
ROUTINE DENTAL INSPECTION.

| Age.                  | Number<br>exam-<br>ined. | State of Teeth. |                  |        | Condition of Gums. |                |         | Grinding Capacity. |         |      | Temporary Teeth. |         | Permanent Teeth. |          |                 | Hypo-<br>plastic. |      |
|-----------------------|--------------------------|-----------------|------------------|--------|--------------------|----------------|---------|--------------------|---------|------|------------------|---------|------------------|----------|-----------------|-------------------|------|
|                       |                          | Clean.          | Fairly<br>clean. | Dirty. | Healthy            | In-<br>flamed. | Septic. | Good.              | Average | Bad. | Sound.           | Decayed | Sound.           | Decayed. |                 |                   |      |
|                       |                          |                 |                  |        |                    |                |         |                    |         |      |                  |         |                  | Saveable | Un-<br>saveable |                   |      |
| Boys . . . . .        | 6                        | 1359            | 842              | 515    | 2                  | 612            | 320     | 427                | 117     | 1083 | 159              | 14827   | 8930             | 4666     | 184             | 51                | 37   |
|                       | 7                        | 1487            | 949              | 530    | 8                  | 653            | 414     | 420                | 89      | 1230 | 168              | 11940   | 8825             | 10148    | 525             | 244               | 196  |
|                       | 8                        | 1522            | 991              | 524    | 7                  | 721            | 447     | 354                | 70      | 1290 | 162              | 8854    | 7877             | 14628    | 723             | 434               | 254  |
|                       | 9                        | 1656            | 1081             | 573    | 2                  | 879            | 425     | 352                | 92      | 1382 | 182              | 7225    | 6780             | 19767    | 791             | 811               | 244  |
|                       | 10                       | 926             | 564              | 350    | 12                 | 556            | 228     | 142                | 77      | 763  | 86               | 2856    | 2700             | 13602    | 466             | 627               | 182  |
|                       | 11                       | 777             | 476              | 295    | 6                  | 564            | 142     | 71                 | 129     | 590  | 58               | 1340    | 1331             | 14140    | 390             | 737               | 216  |
|                       | 12                       | 593             | 367              | 218    | 8                  | 445            | 97      | 51                 | 125     | 452  | 16               | 464     | 593              | 12506    | 309             | 632               | 141  |
|                       | 13                       | 475             | 313              | 158    | 4                  | 353            | 97      | 25                 | 102     | 366  | 7                | 187     | 234              | 10959    | 278             | 590               | 153  |
|                       | 14                       | 52              | 30               | 20     | 2                  | 44             | 8       | —                  | 20      | 32   | —                | 3       | 11               | 1291     | 17              | 63                | 16   |
|                       | Total                    | 8847            | 5613             | 3183   | 51                 | 4827           | 2178    | 1842               | 821     | 7188 | 838              | 47696   | 37281            | 101707   | 3683            | 4189              | 1439 |
| Girls . . . . .       | 6                        | 1264            | 833              | 423    | 8                  | 672            | 286     | 306                | 127     | 1011 | 126              | 13847   | 7514             | 5252     | 251             | 49                | 70   |
|                       | 7                        | 1452            | 1004             | 446    | 2                  | 645            | 445     | 362                | 86      | 1218 | 148              | 10912   | 8276             | 11419    | 582             | 282               | 143  |
|                       | 8                        | 1482            | 1024             | 453    | 5                  | 717            | 440     | 325                | 83      | 1232 | 167              | 7948    | 7093             | 15736    | 798             | 520               | 192  |
|                       | 9                        | 1565            | 1037             | 527    | 1                  | 877            | 405     | 283                | 111     | 1306 | 148              | 5731    | 5533             | 20902    | 842             | 942               | 216  |
|                       | 10                       | 873             | 564              | 305    | 4                  | 565            | 192     | 116                | 101     | 696  | 76               | 1927    | 2040             | 14501    | 475             | 663               | 147  |
|                       | 11                       | 749             | 515              | 230    | 4                  | 555            | 143     | 51                 | 143     | 578  | 28               | 762     | 922              | 14969    | 410             | 718               | 191  |
|                       | 12                       | 577             | 373              | 202    | 2                  | 420            | 130     | 27                 | 128     | 438  | 11               | 272     | 366              | 13035    | 346             | 670               | 156  |
|                       | 13                       | 418             | 280              | 136    | 2                  | 330            | 81      | 7                  | 100     | 315  | 3                | 113     | 146              | 9909     | 301             | 501               | 76   |
|                       | 14                       | 31              | 21               | 10     | —                  | 28             | 3       | —                  | 11      | 20   | —                | 2       | 2                | 774      | 11              | 44                | —    |
|                       | Total                    | 8411            | 5651             | 2732   | 28                 | 4809           | 2125    | 1477               | 890     | 6814 | 707              | 41514   | 31892            | 106497   | 4016            | 4389              | 1191 |
| Boys & Girls<br>Total | 17258                    | 11264           | 5915             | 79     | 9636               | 4303           | 3319    | 1711               | 14002   | 1545 | 89210            | 69173   | 208204           | 7699     | 8578            | 2630              |      |



**TABLE C.—ROUTINE DENTAL INSPECTION.**  
**TABLE SHOWING NUMBER OF DECAYED TEETH AMONG SCHOOL CHILDREN EXAMINED IN THE SCHOOLS BY SCHOOL DENTISTS DURING THE YEAR 1929.**

| Number of Decayed Teeth.                                         | 0          | 1            | 2            | 3            | 4            | 5            | 6            | 7            | 8           | 9           | 10         | 11         | 12         | 13         | 14         | 15         | 16         | 17        | 18       | 19       | 20 and upwards. | Total No. of Decayed Teeth | Total No. of Children. |
|------------------------------------------------------------------|------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|-------------|-------------|------------|------------|------------|------------|------------|------------|------------|-----------|----------|----------|-----------------|----------------------------|------------------------|
| Boys aged 6—<br>Aggregate No. of Children<br>Percentages .....   | 54<br>3.97 | 38<br>2.80   | 119<br>8.76  | 84<br>6.18   | 133<br>9.79  | 126<br>9.27  | 134<br>9.86  | 129<br>9.49  | 127<br>9.35 | 94<br>6.92  | 93<br>6.84 | 65<br>4.78 | 53<br>3.90 | 33<br>2.43 | 29<br>2.13 | 14<br>1.03 | 14<br>1.03 | 11<br>.81 | 6<br>.44 | ..       | 3<br>.22        | 9165                       | 1359<br>100.00         |
| Girls aged 6—<br>Aggregate No. of Children<br>Percentages .....  | 71<br>5.62 | 50<br>3.96   | 116<br>9.18  | 119<br>9.42  | 123<br>9.73  | 129<br>10.21 | 112<br>8.86  | 115<br>9.10  | 107<br>8.47 | 68<br>5.38  | 74<br>5.85 | 48<br>3.79 | 48<br>3.79 | 26<br>2.05 | 19<br>1.50 | 12<br>.95  | 12<br>.95  | 4<br>.32  | 6<br>.47 | 3<br>.24 | 2<br>.16        | 7814                       | 1264<br>100.00         |
| Boys aged 7—<br>Aggregate No. of Children<br>Percentages .....   | 43<br>2.89 | 42<br>2.83   | 121<br>8.14  | 132<br>8.88  | 148<br>9.95  | 158<br>10.63 | 180<br>12.11 | 146<br>9.82  | 132<br>8.88 | 94<br>6.32  | 83<br>5.58 | 63<br>4.23 | 44<br>2.96 | 36<br>2.42 | 23<br>1.54 | 13<br>.87  | 16<br>1.08 | 5<br>.33  | 4<br>.27 | 2<br>.13 | 2<br>.14        | 9594                       | 1487<br>100.00         |
| Girls aged 7—<br>Aggregate No. of Children<br>Percentages .....  | 44<br>3.03 | 43<br>2.96   | 121<br>8.33  | 140<br>9.64  | 166<br>11.43 | 141<br>9.71  | 159<br>10.95 | 136<br>9.37  | 137<br>9.44 | 102<br>7.03 | 81<br>5.58 | 51<br>3.51 | 49<br>3.38 | 33<br>2.27 | 17<br>1.17 | 15<br>1.03 | 4<br>.28   | 5<br>.34  | 6<br>.41 | 2<br>.14 | ..              | 9140                       | 1452<br>100.00         |
| Boys aged 8—<br>Aggregate No. of Children<br>Percentages .....   | 39<br>2.56 | 49<br>3.22   | 149<br>9.79  | 172<br>11.30 | 170<br>11.17 | 169<br>11.11 | 174<br>11.43 | 164<br>10.78 | 116<br>7.62 | 92<br>6.05  | 66<br>4.34 | 50<br>3.29 | 48<br>3.15 | 22<br>1.45 | 21<br>1.38 | 11<br>.72  | 6<br>.39   | 2<br>.13  | 1<br>.06 | 1<br>.06 | ..              | 9034                       | 1522<br>100.00         |
| Girls aged 8—<br>Aggregate No. of Children<br>Percentages .....  | 39<br>2.63 | 51<br>3.44   | 130<br>8.77  | 182<br>12.28 | 199<br>13.43 | 165<br>11.13 | 183<br>12.35 | 170<br>11.47 | 101<br>6.82 | 87<br>5.87  | 53<br>3.58 | 36<br>2.43 | 41<br>2.77 | 17<br>1.15 | 14<br>.94  | 8<br>.54   | 3<br>.20   | 3<br>.20  | ..       | ..       | ..              | 8411                       | 1482<br>100.00         |
| Boys aged 9—<br>Aggregate No. of Children<br>Percentages .....   | 62<br>3.75 | 72<br>4.35   | 188<br>11.35 | 223<br>13.47 | 251<br>15.16 | 209<br>12.62 | 183<br>11.05 | 146<br>8.82  | 118<br>7.13 | 61<br>3.68  | 54<br>3.26 | 41<br>2.47 | 31<br>1.87 | 7<br>.42   | 4<br>.24   | 3<br>.18   | 3<br>.18   | ..        | ..       | ..       | ..              | 8382                       | 1656<br>100.00         |
| Girls aged 9—<br>Aggregate No. of Children<br>Percentages .....  | 67<br>4.28 | 109<br>6.97  | 213<br>13.61 | 216<br>13.80 | 215<br>13.74 | 208<br>13.29 | 162<br>10.35 | 116<br>7.41  | 98<br>6.26  | 62<br>3.96  | 44<br>2.81 | 26<br>1.66 | 9<br>.58   | 11<br>.26  | 6<br>.39   | 1<br>.06   | 2<br>.13   | ..        | ..       | ..       | ..              | 7317                       | 1565<br>100.00         |
| Boys aged 10—<br>Aggregate No. of Children<br>Percentages .....  | 52<br>5.62 | 92<br>9.93   | 141<br>15.23 | 145<br>15.66 | 145<br>15.66 | 104<br>11.23 | 84<br>9.07   | 71<br>7.67   | 30<br>3.24  | 22<br>2.37  | 14<br>1.51 | 16<br>1.73 | 4<br>.43   | 4<br>.43   | 1<br>.11   | 1<br>.11   | ..         | ..        | ..       | ..       | ..              | 3793                       | 926<br>100.00          |
| Girls aged 10—<br>Aggregate No. of Children<br>Percentages ..... | 65<br>7.44 | 100<br>11.45 | 161<br>18.44 | 153<br>17.53 | 121<br>13.88 | 92<br>10.54  | 73<br>8.36   | 34<br>3.89   | 30<br>3.43  | 23<br>2.63  | 11<br>1.26 | 6<br>.69   | 2<br>.23   | ..         | ..         | 2<br>.23   | ..         | ..        | ..       | ..       | ..              | 3178                       | 873<br>100.00          |

MEDICAL INSPECTION OF SCHOOLS.

TABLE C.—Continued.

| Number of Decayed Teeth.                                                | 0            | 1            | 2             | 3             | 4             | 5             | 6            | 7            | 8            | 9           | 10          | 11          | 12          | 13          | 14         | 15        | 16        | 17        | 18        | 19       | 20 and up-wards | Total No. of Decayed Teeth. | Total No. of Children. |
|-------------------------------------------------------------------------|--------------|--------------|---------------|---------------|---------------|---------------|--------------|--------------|--------------|-------------|-------------|-------------|-------------|-------------|------------|-----------|-----------|-----------|-----------|----------|-----------------|-----------------------------|------------------------|
| Boys aged 11—<br>Aggregate No. of Children<br>Percentages .....         | 106<br>13.64 | 107<br>13.77 | 151<br>19.44  | 124<br>15.96  | 96<br>12.36   | 59<br>7.59    | 46<br>5.92   | 36<br>4.63   | 24<br>3.09   | 9<br>1.16   | 13<br>1.67  | 5<br>.64    | 1<br>.13    | ..          | ..         | ..        | ..        | ..        | ..        | ..       | ..              | 2458                        | 777<br>100.00          |
| Girls aged 11—<br>Aggregate No. of Children<br>Percentages .....        | 105<br>14.02 | 125<br>16.69 | 171<br>22.83  | 113<br>15.09  | 100<br>13.35  | 56<br>7.48    | 40<br>5.34   | 16<br>2.14   | 13<br>1.74   | 4<br>.53    | 2<br>.27    | 1<br>.13    | 1<br>.13    | ..          | 1<br>.13   | 1<br>.13  | ..        | ..        | ..        | ..       | ..              | 2050                        | 749<br>100.00          |
| Boys aged 12—<br>Aggregate No. of Children<br>Percentages .....         | 90<br>15.18  | 110<br>18.55 | 124<br>20.91  | 96<br>16.19   | 86<br>14.50   | 32<br>5.39    | 24<br>4.05   | 17<br>2.87   | 8<br>1.35    | 4<br>.67    | 1<br>.17    | 1<br>.17    | ..          | ..          | ..         | ..        | ..        | ..        | ..        | ..       | ..              | 1534                        | 593<br>100.00          |
| Girls aged 12—<br>Aggregate No. of Children<br>Percentages .....        | 111<br>19.24 | 94<br>16.29  | 126<br>21.84  | 98<br>16.98   | 71<br>12.30   | 36<br>6.24    | 20<br>3.47   | 14<br>2.43   | 4<br>.69     | 2<br>.35    | 1<br>.17    | ..          | ..          | ..          | ..         | ..        | ..        | ..        | ..        | ..       | ..              | 1382                        | 577<br>100.00          |
| Boys aged 13—<br>Aggregate No. of Children<br>Percentages .....         | 104<br>21.90 | 87<br>18.32  | 98<br>20.63   | 70<br>14.74   | 47<br>9.89    | 30<br>6.32    | 21<br>4.42   | 8<br>1.68    | 5<br>1.05    | 3<br>.63    | ..          | 2<br>.42    | ..          | ..          | ..         | ..        | ..        | ..        | ..        | ..       | ..              | 1102                        | 475<br>100.00          |
| Girls aged 13—<br>Aggregate No. of Children<br>Percentages .....        | 77<br>18.42  | 85<br>20.34  | 105<br>25.12  | 66<br>15.79   | 34<br>8.14    | 22<br>5.26    | 13<br>3.11   | 3<br>.72     | 8<br>1.91    | 4<br>.95    | 1<br>.24    | ..          | ..          | ..          | ..         | ..        | ..        | ..        | ..        | ..       | ..              | 948                         | 418<br>100.00          |
| Boys aged 14—<br>Aggregate No. of Children<br>Percentages .....         | 14<br>26.92  | 15<br>28.85  | 7<br>13.46    | 7<br>13.46    | 6<br>11.54    | 1<br>1.92     | 2<br>3.85    | ..           | ..           | ..          | ..          | ..          | ..          | ..          | ..         | ..        | ..        | ..        | ..        | ..       | ..              | 91                          | 52<br>100.00           |
| Girls aged 14—<br>Aggregate No. of Children<br>Percentages .....        | 8<br>25.81   | 9<br>29.03   | 2<br>6.45     | 5<br>16.13    | 6<br>19.35    | 1<br>3.23     | ..           | ..           | ..           | ..          | ..          | ..          | ..          | ..          | ..         | ..        | ..        | ..        | ..        | ..       | ..              | 57                          | 31<br>100.00           |
| TOTAL Boys and Girls—<br>Aggregate No. of Children<br>Percentages ..... | 1151<br>6.67 | 1278<br>7.40 | 2243<br>13.00 | 2145<br>12.43 | 2117<br>12.27 | 1738<br>10.07 | 1610<br>9.33 | 1321<br>7.65 | 1058<br>6.13 | 731<br>4.24 | 591<br>3.42 | 411<br>2.38 | 331<br>1.92 | 189<br>1.10 | 135<br>.78 | 81<br>.47 | 60<br>.35 | 30<br>.17 | 23<br>.13 | 8<br>.05 | 7<br>.04        | 85450                       | 17258<br>100.00        |



### Crippling Defects.

Amongst the Code Group cases 40 children were referred for treatment on account of rickets.

### Infectious Disease.

A system of notification is in force whereby the Head Teachers forward to the Medical Officer of Health particulars of the cause of absence from sickness of the children attending their schools. These returns are sent in weekly, and are classified in the following table :—

RETURN OF SICKNESS IN SCHOOLS DURING THE YEAR 1929.

| Notifiable Diseases. | Measles. | Whooping Cough. | Chicken-pox. | Mumps. | Ringworm. | Ophthalmia. | Sore Throat. | Bronchitis and Pneumonia. | Colds. | Other Diseases. | Influenza |
|----------------------|----------|-----------------|--------------|--------|-----------|-------------|--------------|---------------------------|--------|-----------------|-----------|
| 742                  | 1441     | 648             | 1008         | 1538   | 110       | 327         | 4328         | 1758                      | 23564  | 11302           | 526       |

### Following Up.

The work of following up has been carried out by (a) the School Medical Officers, and (b) School Nurses.

A large number of cases seen in the schools during the course of routine inspection are referred to the Inspection Clinic for further examination at a later date.

Formerly "Home Visits" for the purpose of following up were carried out almost entirely by the Attendance Officers. The School Nurses, however, are now undertaking this work. During the last year they paid over 3,812 home visits.

### Medical Treatment.

A number of defects requiring treatment are dealt with under the Local Authorities' Scheme. This



includes :—(1) The treatment of minor ailments at the School Clinic ; (2) the treatment of scalp ringworm at the X-ray Clinic ; (3) the treatment of alopecia by the High Frequency Current ; (4) the treatment of dental defects at the Dental Clinic ; (5) the treatment of visual defects at the Eye Clinic ; and (6) the surgical treatment of tonsils and adenoids at the Salford Royal Hospital and the Manchester Victoria Memorial Jewish Hospital.

### **The Minor Ailments Clinic.**

During the past year 3,380 new cases were treated at the Minor Ailments Clinics, Regent Road, Teneriffe Street and Police Street, and the attendances of patients totalled 63,265. The cases which received treatment were those who would otherwise have received little or no attention, such as chronic ear discharge, chronic nasal discharge, often accompanied by impaired hearing ; skin diseases such as tinea, alopecia, eczema, impetigo, sores and septic conditions, and such common external eye diseases as conjunctivitis and blepharitis.

It is found that the great majority of these cases rapidly improve under thorough treatment, and, as a rule, even the bad cases are soon able to resume school.

The treatment is carried out by the School Nurses under the direction of the Medical Officers.

Two School Nurses attend the Regent Road Clinic each morning, one attends the Teneriffe Street Clinic each afternoon and one attends the Police Street Clinic each morning.

All cases attending the Clinic are first examined either at the Inspection Clinic or at school by the Medical Officers, who issue cards authorising the child's attendance at the Treatment Clinic.

The cards show the doctors' diagnosis and instructions for treatment, and the date of attendance is stamped thereon for the information of the teacher. No child is treated at the Minor Ailments Clinic unless first authorised and given a card by the Medical Officer, otherwise the Nurses would be quickly overwhelmed.

The following Table shows the number of new cases and attendances up to December 31st, 1929 :—

|                   | Boys. | Girls. | Total. |
|-------------------|-------|--------|--------|
| New Cases .....   | 1918  | 1462   | 3380   |
| Attendances ..... | 35755 | 27510  | 63265  |

### Tonsils and Adenoids.

The Education Committee have an arrangement for the surgical treatment of these cases at the Salford Royal Hospital, and the Manchester Victoria Memorial Jewish Hospital.

Lists of cases considered suitable for operation are submitted to the hospitals. After operation, children are re-examined at the Inspection Clinic by a School Medical Officer.

A charge of 25s. is made by the Salford Royal Hospital, and 27s. 6d. by the Manchester Victoria Memorial Hospital for each case operated upon, and a portion of this charge is recovered from parents who can afford to contribute towards the cost; 432 cases have been successfully operated on during the year.

### Tuberculosis.

Children found to be suffering from definite tuberculosis are generally referred for treatment to the Tuberculosis Department. A certain number of children suffering from suspected tuberculosis are dealt with at the Open Air Schools.

### Skin Disease.

#### RINGWORM.—THE X-RAY CLINIC.

The very efficient X-ray apparatus for the treatment of ringworm was installed early in the year 1913.

From the beginning this Clinic has been so successful in coping with the large amount of scalp ringworm of an obstinate type formerly prevalent in the City that there are nowadays insufficient cases to keep the Clinic working regularly.

It was generally found necessary to epilate the whole scalp in each case according to the five-exposure method of Kienböck. By this method the whole of the scalp is exposed at one sitting of approximately two hours, epilation being complete by about the end of the third week.

After X-ray application the children are allowed to return to school, wearing a cap, as soon as epilation is complete and no ringworm stumps remain in the scalp.

A nominal charge of 5s. per child treated is made to the parent.

X-rays have been administered to 18 cases of scalp ringworm during the year. Eighteen cases were certified fit at the end of December.

Of the above 18 cases, it was necessary to epilate the whole scalp in seventeen cases, and one patch in one case.

Number of re-examinations after X-rays, 78.

The children were fit to return to school again, on the average, five weeks after the application of the rays.



On the other hand the 11 cases cured without the application of X-rays were only fit to return to school on the average 12 weeks after the commencement of treatment, one case taking as long as five months and the majority three to four months.

It may be too much to hope that the disease will ever be entirely eradicated, but compared with the prevalence of the disease before the provision of X-ray treatment, the number of cases of scalp ringworm met with at the present time is small indeed.

#### ECZEMA, IMPETIGO AND SORES.

A large number of such cases are now being dealt with very successfully at the School Clinics, and many obstinate cases of impetigo are returned to school after a few days' treatment.

#### SCABIES.

Cases are now treated daily by the School Nurses at the Mode Wheel Disinfecting Station, and the children are first given a warm bath, after which the appropriate remedies are applied. In most of these cases the bedding is also disinfected. It is found that this treatment very considerably shortens the duration of the disease.

#### Ear Disease and Hearing.

Cases of ear disease and defective hearing are generally kept under observation by the School Doctor at the Inspection Clinic, and many of these receive treatment at the School Clinic. This treatment includes the daily syringing, etc., of cases of otorrhœa and also the giving of nasal douches where the impaired hearing is due to catarrh and obstruction of the nasal passages.

### **Dental Clinic.**

The School Dentists, as in previous years, devoted most of their time to conservative dental treatment of the first permanent teeth (six-year old molars). Actual dental inspection in the schools was carried out on six mornings per week (two mornings for each of the three Dentists), the remainder of the week being occupied with the treatment of defects found in the course of this inspection.

The attendance of the children at the Clinics has been extremely good, very few of them failing to keep their appointments.

Altogether 6,592 children were treated at the Dental Clinics, making 9,820 attendances. There were 13,131 extractions of teeth, 3,539 fillings, 354 dressings and 716 scalings.

The tables on pages 198-201 show in detail the work carried out during the year 1929.

Owing to the impossibility of undertaking dental treatment for all school children in the City with the present staff of three, the School Dentists now confine their activities to a limited number of schools, the most needy being selected. This arrangement allows the School Dentists to follow up the cases already treated, and so keep the mouths of the children in order.

### **Crippling Defects.**

A number of children suffering from well-marked ricketty and certain other deformities are very successfully dealt with at the Greengate Dispensary under the supervision of Dr. Mumford. The children so treated are resident in the institution for a period.

The Committee are agreed that the provision of a day school to accommodate 100 crippled children is a necessity. The Committee acquired a piece of land adjoining Buile Hill Park which it was thought might be utilised as a site for a Cripple School.

On further consideration it was realised that a considerable amount of money would have to be expended in preparing this site, which again was not quite as open as it might be.

The Committee are therefore in negotiation with a view to obtaining an alternative site.

### **Heart and Circulation.**

In all well-marked cases of heart disease, the parents were interviewed and warned of the defect, and the children were referred for further examination in three months' time. The teachers were also warned of such defects and advised as to the child's fitness for drill or otherwise.

### **The Ophthalmic Clinics.**

The Ophthalmic Officer's Report is appended herewith :

#### **REPORT OF THE OPHTHALMIC CLINICS, SALFORD EDUCATION COMMITTEE.**

The essential duties are performed at :—

- (1) The Refraction Clinic, held at the Education Office, Chapel Street, Salford.
- (2) The External Eye Diseases Clinic, held at Regent Road.



- (3) The South Bank Sight-saving School, Sandy Lane, Pendleton.

### The Refraction Clinic.

This naturally constitutes the largest section of the ophthalmic work, and consists in the examination of children suffering from defective eyesight.

Every child referred to this clinic is examined both with and without the use of mydriatics, as, only in this way can a complete and thorough examination of the fundus be effected. Spectacles are prescribed in the following conditions :—

- (1) All cases of Myopia and Myopic Astigmatism.
- (2) Hypermetropia and Hypermetropic Astigmatism where an improvement can be effected in one or both eyes.
- (3) All cases of Strabismus.

In the greater number of cases, spectacles are required for school work, particularly reading and writing, but in addition, it has been found that a large number of children attend the pictures two or three times per week, sitting in the cheaper seats near to the flickering lights on the screen, and only the use of suitable spectacles can save their eyes from possibly serious strain. If in such cases the spectacles be worn regularly from one to three years a great improvement takes place, and in many cases the spectacles can be entirely dispensed with.

During the past year a record has been kept of all myopes. These cases will in future be invited to attend for re-examination after either 6 or 12 months according to their condition, and thus it is hoped to keep in close touch with this, in some cases, serious condition, in order to check its progress, and to prescribe the necessary alterations in the strength of the lenses.

The arrangements with the Child Welfare department whereby children with strabismus are referred to this department, continues to work quite satisfactorily and considerable improvement has been noted in many of the cases in which advantage has been taken of this early treatment.

### **The External Eye Diseases Clinic.**

During the past year this clinic has more than maintained its position as a useful centre for the treatment of active diseases of the external eye. The number of cases suffering from severe inflammatory conditions has shown a considerable diminution compared with last year.

This is undoubtedly due to the fact that full advantage is now being taken of the treatment and advice available at the clinic. The teachers in the elementary schools are now referring children to this clinic at the first signs of any affection of the eyes, and this tends to considerably shorten the necessary duration of treatment.

In all cases of severe mucopurulent inflammation, energetic treatment has been taken, which has, in a large degree, prevented the infection spreading to other children in the family and neighbourhood.

Experience has proved that most cases of conjunctivitis more quickly improve if they are allowed to attend school after their daily treatment at the clinic. The risk of infection to other children attending school is comparatively negligible. Those cases accompanied by a free mucopurulent discharge are the only exceptions to the above.

If the milder cases are compelled to keep away from school, they play about in the dirty streets, rub their eyes with dirty hands, or possibly remain in overcrowded often ill-ventilated rooms, and thus tend to considerably prolong the inflammatory condition of their eyes.

In some cases of Phlyctenular disease, mydriatics have to be applied to either one or both eyes ; as a result of this, all school work requiring accommodation, such as reading and writing cannot be done.

Nevertheless, these children may quite profitably attend school as they can take part in all the lessons (except reading and writing), and their eye conditions heal much more quickly.

It is at this clinic that children suffering from congenital syphilitic conditions of the eyes are most frequently seen. Arrangements have been made whereby the children and parents may enter the Municipal clinic through a special education department entrance rather than through the main entrance (thus obviating any unpleasant feeling), until the diagnosis has been confirmed.



During the past year every case referred to the Municipal clinic has yielded positive Wassermann reactions.

### **South Bank Sight-saving School.**

The reorganisation of the general medical and ophthalmic supervision of this school introduced in 1928 has amply justified itself during the past year. The physical condition of the children has continued to show very considerable improvement, and this has been reflected in a distinct and increasing efficiency in the ophthalmic capacity. As a result of this, it has been found that the lenses do not now require to be changed so frequently, and the attendances at the daily clinic held at the school, of children suffering from either chronic or acute inflammatory conditions of the eyes, have been greatly reduced in number, and cases which have hitherto shown little sign of improvement have steadily though slowly yielded to treatment.

The school continues to serve a very useful purpose in helping by advice and treatment to preserve the limited vision in children who would undoubtedly become much worse, were they compelled to submit to ordinary elementary school conditions.

The headmistress at South Bank reports that as a result of this increased attention and treatment, the attendance of the children at school during the winter has been much better than in previous years.

The number of children admitted to South Bank during the year was 15 (8 girls and 7 boys), and the number discharged, 11 (6 girls and 5 boys).

TABLE S IVa.

SUMMARY OF CASES SEEN BY THE OPHTHALMIC OFFICER AT THE  
EDUCATION OFFICE DURING THE YEAR 1929.

## A.—REFRACTIONS.

|                                 | Boys. | Girls. | Total. |
|---------------------------------|-------|--------|--------|
| Hypermetropia .....             | 61    | 58     | 119    |
| Hypermetropic Astigmatism ..... | 354   | 379    | 733    |
| Myopia .....                    | 84    | 97     | 181    |
| Myopic Astigmatism .....        | 116   | 143    | 259    |
| Emmetropia .....                | 32    | 43     | 75     |
| Mixed Astigmatism .....         | 55    | 69     | 124    |
| Anisometropia .....             | 23    | 34     | 57     |
| Nil .....                       | 72    | 79     | 151    |
| TOTALS .....                    | 797   | 902    | 1699   |

## B.—DISEASES OF THE EYE.

|                                      | Boys. | Girls. | Total. |
|--------------------------------------|-------|--------|--------|
| Muscle Disorders—                    |       |        |        |
| Nystagmus .....                      | 1     | 3      | 4      |
| Squint .....                         | 224   | 216    | 440    |
| Disease of the Conjunctivæ and Lids— |       |        |        |
| Conjunctivitis .....                 | 28    | 33     | 61     |
| Blepharitis .....                    | 9     | 4      | 13     |
| Disease of the Cornea—               |       |        |        |
| Nebulæ .....                         | 8     | 13     | 21     |
| Keratitis .....                      | 1     | 2      | 3      |
| Disease of the Lens—                 |       |        |        |
| Cataract .....                       | 2     | —      | 2      |
| Other Defects .....                  | 7     | 5      | 12     |

### Open Air Schools.

The David Lewis Day School, which provides accommodation for 70 delicate children, was opened on the 28th August, 1916, in the open shed and premises in the David Lewis Recreation Ground. The staff consists of a head teacher with two assistants.

The Barr Hill Day School, which provides accommodation for 100 delicate children, was opened on the 30th May, 1924.

The school is built on an elevated site, standing well above the valley, and its open front looks due south. The plan resembles the letter "E" with the middle tongue missing, the central portion being a shed left permanently open to the south, and windowed to the north. One projecting wing comprises two classrooms, and the other wing the administrative portion, including kitchen and cloakroom. The classrooms, by means of folding glass doors, can be opened to the east, south and west, but are permanently closed to the north.

The staff consists of a head teacher and three assistants.

Delicate children, from 6 to 14 years of age, are admitted, and are daily conveyed to and from the open air schools, free of charge, by a service of special tramcars.

Children arrive at school at 9 o'clock a.m. and remain the whole day, leaving at 6 o'clock p.m. during the summer, and 4-30 p.m. in the winter.

The children admitted to the Open Air Schools are selected by examination by the Medical Staff, and the



parents are urged to get any defects, such as enlarged tonsils and adenoids, or decayed teeth, remedied before admission to the schools.

No children are admitted who are considered likely to be a source of infection to others.

The school nurse attends each school daily, the children are weighed each week, and the Medical Inspector also visits the schools once a week.

Three meals are provided—breakfast, dinner and tea—for which a maximum charge of 5s. per week is made. After dinner the children rest in the recumbent position for two hours, either in the open when weather permits, or under cover when wet.

Children who have been discharged from the Open Air Schools to the ordinary schools are invited periodically to the Clinic, for observation of their further progress.

### Open Air Schools, Year 1929.

DAVID LEWIS.

|                                                             | Boys. | Girls. | Total. |
|-------------------------------------------------------------|-------|--------|--------|
| Number of Admissions during 1929 .....                      | 29 .. | 32 ..  | 61     |
| Number of Discharges during 1929 .....                      | 26 .. | 34 ..  | 60     |
| Number of Children on Register at end of<br>Year 1929 ..... | 39 .. | 42 ..  | 81     |

### CHILDREN DISCHARGED DURING 1929.

|                                       | Boys.    | Girls.   | Total.   |
|---------------------------------------|----------|----------|----------|
| Average "Stay" in School (weeks)..... | 52·0 ..  | 47·6 ..  | 49·8     |
| AVERAGE GAIN IN WEIGHT.....           | 7·5 ..   | 7·7      | 7·6 lbs. |
|                                       | yr. mth. | yr. mth. | yr. mth. |
| Average Age on Admission .....        | 9 2 ..   | 9 0 ..   | 9 1      |

OPEN AIR SCHOOLS, YEAR 1929, DAVID LEWIS—*Continued.*

|                                           | Boys. | Girls. | Total. |
|-------------------------------------------|-------|--------|--------|
| Transferred to Ordinary School .....      | 14    | 22     | 36     |
| Left, aged 14.....                        | 2     | 1      | 3      |
| Admitted to Nab Top, Marple .....         | 6     | 5      | 11     |
| Transferred to Industrial School .....    | 1     | —      | 1      |
| Transferred to Dull or Backward Class. .. | —     | 1      | 1      |
| Taken off Rolls (poor attendance) .....   | —     | 1      | 1      |
| „ „ „ (removed from district) ...         | 2     | 1      | 3      |
| „ „ „ (parents' wish) .....               | 1     | 1      | 2      |
| „ „ „ (deceased) .....                    | —     | 1      | 1      |
| „ „ „ (refusal to pay) .. .....           | —     | 1      | 1      |
|                                           | 26    | 34     | 60     |

CLASSIFICATION OF DISEASES FROM WHICH THE ABOVE DISCHARGED  
CHILDREN WERE SUFFERING.

|                                       | Boys. | Girls. | Total. |
|---------------------------------------|-------|--------|--------|
| Tuberculosis, Lungs (Suspected) ..... | 1     | 2      | 3      |
| „ „ Bones .....                       | 2     | —      | 2      |
| „ „ (Suspected).....                  | —     | 3      | 3      |
| „ „ Glands .....                      | —     | —      | —      |
| „ „ (Suspected) .....                 | 1     | —      | 1      |
| „ „ Abdomen .....                     | —     | —      | —      |
| „ „ „ (Suspected) .....               | —     | 1      | 1      |
| Bronchitis .....                      | 9     | 6      | 15     |
| Post-pneumonic fibrosis .....         | —     | 1      | 1      |
| Rheumatism .....                      | —     | 1      | 1      |
| Mitral disease .....                  | 2     | —      | 2      |
| Rickets.....                          | 2     | —      | 2      |
| Delicate .....                        | 5     | 13     | 18     |
| Anaemia .....                         | 4     | 6      | 10     |
| Adenoids .....                        | —     | 1      | 1      |
|                                       | 26    | 34     | 60     |

OPEN AIR SCHOOLS, YEAR 1929—Continued.

BARR HILL.

|                                                             | Boys. | Girls. | Total. |
|-------------------------------------------------------------|-------|--------|--------|
| Number of Admissions during 1929 .....                      | 64    | 40     | 104    |
| Number of Discharges during 1929 .....                      | 55    | 48     | 103    |
| Number of Children on Register at end of<br>Year 1929 ..... | 61    | 52     | 113    |

CHILDREN DISCHARGED DURING 1929.

|                                          | Boys.    | Girls.   | Total.   |
|------------------------------------------|----------|----------|----------|
| Average " Stay " in School (weeks) ..... | 54·0     | 44·8     | 49·4     |
| AVERAGE GAIN IN WEIGHT.....              | 7·9      | 7·1      | 7·5 lbs. |
|                                          | yr. mth. | yr. mth. | yr. mth. |
| Average Age on Admission.....            | 9 4      | 9 0      | 9 2      |

|                                                     | Boys. | Girls. | Total. |
|-----------------------------------------------------|-------|--------|--------|
| Transferred to Ordinary School .....                | 34    | 29     | 63     |
| Left, aged 14 .....                                 | 8     | 4      | 12     |
| Admitted to Nab Top, Marple .....                   | 4     | 3      | 7      |
| „ „ Hospital .....                                  | 5     | 4      | 9      |
| Transferred to David Lewis Open Air<br>School ..... | —     | 1      | 1      |
| Taken off Rolls (left the district) .....           | 2     | 3      | 5      |
| „ „ (parents' request) .....                        | —     | 2      | 2      |
| „ „ (unsatisfactory attendance) ..                  | —     | 1      | 1      |
| „ „ (unfit for any School) .....                    | 2     | 1      | 3      |

55 .. 48 .. 103



OPEN AIR SCHOOLS, YEAR 1929, BARR HILL—*Continued.*CLASSIFICATION OF DISEASES FROM WHICH THE ABOVE DISCHARGED  
CHILDREN WERE SUFFERING.

|                                              | Boys. | Girls. | Total. |
|----------------------------------------------|-------|--------|--------|
| Tuberculosis, Lungs (Early) .....            | — ..  | — ..   | —      |
| „ „ Suspected) .....                         | 2 ..  | — ..   | 2      |
| „ Glands.....                                | — ..  | 2 ..   | 2      |
| „ „ (Suspected).....                         | — ..  | — ..   | —      |
| „ Abdomen .....                              | — ..  | — ..   | —      |
| „ „ (Suspected).....                         | 3 ..  | 1 ..   | 4      |
| „ Bones and Joints .....                     | 2 ..  | 2 ..   | 4      |
| „ „ „ „ (Suspected).....                     | — ..  | — ..   | —      |
| Delicate .....                               | 10 .. | 10 ..  | 20     |
| Anaemia .....                                | 6 ..  | 4 ..   | 10     |
| Bronchitis .....                             | 18 .. | 10 ..  | 28     |
| Asthma and Bronchitis .....                  | 2 ..  | 2 ..   | 4      |
| Adenitis .....                               | 1 ..  | 3 ..   | 4      |
| Rickets.....                                 | 5 ..  | 1 ..   | 6      |
| Heart Disease .....                          | 1 ..  | — ..   | 1      |
| Malnutrition .....                           | 1 ..  | 5 ..   | 6      |
| Chorea and Mitral Disease ... ..             | — ..  | 2 ..   | 2      |
| Dyspepsia.....                               | — ..  | 1 ..   | 1      |
| Laryngitis .....                             | — ..  | 1 ..   | 1      |
| Delicate and Suspected Tuberculosis, Lungs.. | — ..  | 2 ..   | 2      |
| Unresolved Pneumonia.....                    | — ..  | 1 ..   | 1      |
| Chorea .....                                 | 2 ..  | 1 ..   | 3      |
| Scoliosis .....                              | 1 ..  | — ..   | 1      |
| Post Pneumonic Fibrosis .....                | 1 ..  | — ..   | 1      |
|                                              | 55 .. | 48 ..  | 103    |

### **Physical Training.**

The School Medical Officers advise as to the kind of exercises to be adopted in some cases of temporary deformity, such as slight scoliosis.

### **Provision of Meals.**

The usual arrangements with regard to cooking of dinners and the conveyance to the feeding centres were followed.

The number of children requiring free meals shows an increase during the year, the average monthly number being 172, as compared with 147 for the previous year.

Children examined in the schools by the Medical Officers and found to be suffering from malnutrition are referred for investigation into the parents' means and, where necessary, free meals are given.

### **Swimming Instruction.**

During the season just closed, 19 Swimming Instructors were appointed for boys and six for girls, and the number of attendances of children during school hours at the several baths was 33,968 in the case of boys, and 30,061 in the case of girls, making a total of 64,029, as compared with 53,748 in the previous year. Reports were received from the Instructors that, of the children attending the baths, 1,447 boys and 1,080 girls proved themselves able to swim.

In order to encourage the children to learn swimming, the Baths Committee have continued the arrangement under which a free season ticket for the ensuing year is given to each scholar who, at the commencement of the

season, is unable to swim more than ten yards, and who at the end of the season has proved able to swim one length of the bath. Certificates of proficiency are also awarded by the Education Committee, after an examination conducted by a committee of Head Teachers. The number of such certificates gained during the past season was 1,985, compared with 1,738 for the previous year.

### Co-operation of Parents.

Parents present at the inspection are, of course, notified directly of any defect discovered, and they are advised as to the necessary treatment. When parents are absent at the time of the inspection, and it is desirable that they should be interviewed with respect to defects discovered, invitations for these parents to attend the inspection clinic, together with the children, are issued, and so the cases are followed up.

### Co-operation of Teachers.

Previous to the visit of the School Doctor, teachers notify parents of the date and time at which their children will be examined.

Each Head Teacher supplies weekly to the Medical Officer a return of sickness in the schools. In this way early information is obtained as to the outbreak of any infectious sickness amongst school children.

Again, a large number of the special cases examined at the Inspection Clinic are children who have been referred by school teachers for medical examination.



In the case of mentally defective children the work of the Medical Officer is greatly facilitated by the special reports which are furnished by Head Teachers.

### **Co-operation of School Attendance Officers.**

The assistance of the School Attendance Officers is obtained in the case of children who have been invited to the Inspection Clinic and do not attend.

Cleansing notices issued in accordance with Section 87 of the Education Act, 1921, are delivered by the Attendance Officers, who insure the attendance of the verminous children at the cleansing centre.

The Superintendent of Attendance Officers is daily supplied with all information with respect to periods of school exclusion, or fitness for school in the case of children examined at the Inspection and Treatment Clinics.

### **Co-operation of Voluntary Bodies.**

The co-operation of the Invalid Children's Aid Association and the Crippled Children's Help Association has been obtained in a number of cases. Through these agencies a considerable number of children have been sent to Holiday and Convalescent Homes at the seaside, or in the country, and in the case of some of the cripples suitable apparatus has been supplied by these voluntary bodies.

During the year 1929, the number of children of school age who have been dealt with by the Invalid

Children's Aid Association is 96, and the manner in which they have been dealt with is as follows :—

|                                                                                                                                            | Boys. |    | Girls. |    | Total. |
|--------------------------------------------------------------------------------------------------------------------------------------------|-------|----|--------|----|--------|
| Convalescent treatment, for periods<br>varying from 1 to 32 weeks, total<br>number of weeks 616, an average of<br>6½ weeks per child ..... | 42    | .. | 54     | .. | 96     |

**Blind, Deaf, Defective and Epileptic Children.**

A list of the above children maintained in special institutions will be found in Tables S IIIA. and S IIIB. in the Statistical Tables.

A school for the accommodation of partially blind children was opened in the City on March 7th, 1921. This school serves as a Day School for children who are not totally blind, but whose vision is too defective for them to be taught in the ordinary schools. Fifteen children were admitted during the year.

Cases of total blindness are sent to a residential institution.

One of the School Medical Officers, Dr. H. Heathcote, is engaged in the examination and classification of mentally defective children with respect to their suitability for treatment in :—

- (a) Resident Institutions for Imbeciles and Idiots.
- (b) Special Residential Schools for Mentally Defective Children.
- (c) Special Day Schools for Mentally Defective Children.
- (d) Special Classes in Ordinary Schools.

A similar list is prepared in the case of physically defective children in respect of their suitability for treatment in :—

- (a) Residential Open Air Schools.
- (b) Day Open Air Schools.
- (c) Sanatorium Schools.
- (d) Special Residential Schools for Cripples.
- (e) Special Day Schools for Cripples.
- (f) Special Residential Schools for Epileptics.
- (g) Special Residential Hospital Schools for Non-Pulmonary Tuberculosis.

Mentally defective children who are not in Special Schools are referred to the South-East Lancashire Association for Mental Welfare for supervision, and some of them attend an Occupation Centre.

### The South Bank Sight-saving School.

There are 75 children on the rolls, and the teachers at the School constitute the After-Care Committee.

Eleven children left the School in 1929, and the following is a summary of the records of their after-careers :—

|                                             | Boys. | Girls. | Total. |
|---------------------------------------------|-------|--------|--------|
| Returned to Ordinary School .....           | 2 ..  | — ..   | 2      |
| Working .....                               | 1 ..  | 5 ..   | 6      |
| Home Duties ... ..                          | — ..  | 1 ..   | 1      |
| Left the District .....                     | 1 ..  | — ..   | 1      |
| Recommended for Institution for the Blind . | 1 ..  | — ..   | 1      |
|                                             | 5 ..  | 6 ..   | 11     |

### Nursery Schools.

As yet there is but one in the City, namely, in Hulme Street, where about 69 children are in daily



attendance. This school is visited each week by the Child Welfare Medical Officer.

### Secondary Schools.

The work of medical inspection in respect of the Secondary Schools has been undertaken by one of the Medical Inspection Staff, Dr. H. Heathcote.

On the occasion of the visit of the doctor to each of these schools the whole of the pupils in attendance have been submitted to medical examination. This examination is the same in character as in the case of Elementary Schools, and in the same way parents have an opportunity of being present.

Children who may be suffering from tonsils and adenoids or defective vision may now participate in the Education Committee's scheme for treatment.

Following up is undertaken by Dr. H. Heathcote, who re-visits the schools in order to ascertain whether the treatment recommended has been carried out.

Tables showing the number of pupils examined and the findings of the Medical Inspector will be found in the Statistical Tables.

### Miscellaneous.

A number of Teachers, Exhibitioners, Bursars, and special cases have been medically examined by the Medical Officers during the year. (*See Table S IB. in the Statistical Tables.*)

The total number of children medically examined in the Elementary Schools during the year amounted to 10,831

During the year 27,529 invitations were sent out to children referred for medical treatment, and there were 19,238 attendances ; 8,218 cases were discharged from the Clinic, 91·12 per cent of which were remedied. (See pages 238-239 of Statistical Tables.)

### Summary of Examinations.

During the year 1929, 54,295 examinations were conducted by the Medical Officers of the Education Committee.

These examinations were made up as follows :—

|                                                                                                                                                                         |        |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------|
| (a) Children belonging to Code Groups<br>examined in the Schools .....                                                                                                  | 10,831 |
| (b) Cases of visual defects examined by<br>retinoscopy at Chapel Street .....                                                                                           | 1,815  |
| (c) Absentees and cases of disease or<br>defect examined by the Medical<br>Officers at Regent Road Centre,<br>Teneriffe Street Centre and Police<br>Street Centre ..... | 19,252 |
| (d) Verminous cases in which cleansing<br>notices have been served under<br>Section 87 of the Education Act,<br>1921, examined at Regent Road..                         | 753    |
| (e) Teachers, pupil teachers, bursars, and<br>various special cases examined .....                                                                                      | 698    |
| (f) Children examined in the schools by<br>the School Dentists .....                                                                                                    | 18,938 |
| (g) Children examined in Secondary<br>Schools .....                                                                                                                     | 1,798  |
| (h) Employment Certificates issued....                                                                                                                                  | 210    |

STATISTICAL TABLES.

Elementary Schools.

TABLE I.

RETURN OF MEDICAL INSPECTIONS DURING THE YEAR ENDED  
31ST DECEMBER, 1929.

A.—ROUTINE MEDICAL INSPECTIONS.

|                                   | Boys. | Girls. | Total. |
|-----------------------------------|-------|--------|--------|
| Number of Code Group Inspections— |       |        |        |
| Entrants .....                    | 1752  | 1588   | 3340   |
| Intermediates .....               | 2319  | 2240   | 4559   |
| Leavers .....                     | 1521  | 1411   | 2932   |
| Total .....                       | 5592  | 5239   | 10831  |

Number of other Routine Inspections ..... .. ..

B.—OTHER INSPECTIONS.

|                                     | Boys. | Girls. | Total. |
|-------------------------------------|-------|--------|--------|
| Number of Special Inspections ..... | 4733  | 4190   | 8923   |
| Number of Re-inspections .....      | 7401  | 6810   | 14211  |
| Total .....                         | 12134 | 11000  | 23134  |



TABLE 1—Continued.

AVERAGE HEIGHTS AND WEIGHTS OF CHILDREN EXAMINED AT THE ROUTINE MEDICAL INSPECTION.

| BOYS. AVERAGE HEIGHT IN INCHES.                           |                                |                                |                                 | GIRLS. AVERAGE HEIGHT IN INCHES.                          |                                |                                |                                 |
|-----------------------------------------------------------|--------------------------------|--------------------------------|---------------------------------|-----------------------------------------------------------|--------------------------------|--------------------------------|---------------------------------|
| Average age in years                                      | 5 <sup>6</sup> / <sub>12</sub> | 8 <sup>7</sup> / <sub>12</sub> | 12 <sup>6</sup> / <sub>12</sub> | Average age in years                                      | 5 <sup>6</sup> / <sub>12</sub> | 8 <sup>6</sup> / <sub>12</sub> | 12 <sup>6</sup> / <sub>12</sub> |
| Number examined                                           | 1752                           | 2319                           | 1521                            | Number examined                                           | 1538                           | 2240                           | 1411                            |
| Anthropometric standard at 5, 8 and 12 years respectively | 40.4                           | 46.9                           | 54.7                            | Anthropometric standard at 5, 8 and 12 years respectively | 40.2                           | 46.3                           | 54.9                            |
| Salford average                                           | 41.9                           | 47.9                           | 55.7                            | Salford average                                           | 4.18                           | 47.8                           | 56.5                            |
| Difference                                                | +1.5                           | +1.0                           | +1.0                            | Difference                                                | +1.6                           | +1.5,                          | +1.6                            |

| BOYS. AVERAGE WEIGHT IN LBS.                              |                                |                                |                                 | GIRLS. AVERAGE WEIGHT IN LBS.                              |                                |                                |                                 |
|-----------------------------------------------------------|--------------------------------|--------------------------------|---------------------------------|------------------------------------------------------------|--------------------------------|--------------------------------|---------------------------------|
| Average age in years                                      | 5 <sup>6</sup> / <sub>12</sub> | 8 <sup>7</sup> / <sub>12</sub> | 12 <sup>6</sup> / <sub>12</sub> | Average age in years                                       | 5 <sup>6</sup> / <sub>12</sub> | 8 <sup>6</sup> / <sub>12</sub> | 12 <sup>6</sup> / <sub>12</sub> |
| Number examined                                           | 1752                           | 2319                           | 1521                            | Number examined                                            | 1588                           | 2240                           | 1411                            |
| Anthropometric standard at 5, 8 and 12 years respectively | 38.2                           | 50.2                           | 71.5                            | Anthropometric standard at 5, 8, and 12 years respectively | 37.3                           | 48.9                           | 72.3                            |
| Salford average                                           | 40.0                           | 52.7                           | 72.6                            | Salford average                                            | 38.1                           | 51.6                           | 74.4                            |
| Difference                                                | +1.8                           | +2.5                           | +1.1                            | Difference                                                 | + .8                           | +2.7                           | +2.1                            |

TABLE II.

**A.—RETURN OF DEFECTS FOUND IN THE COURSE OF MEDICAL  
INSPECTION IN 1929.**

| DEFECTS OR DISEASES.                            | ROUTINE<br>INSPECTION.            |                                                      | SPECIALS.                         |                                                                                         |
|-------------------------------------------------|-----------------------------------|------------------------------------------------------|-----------------------------------|-----------------------------------------------------------------------------------------|
|                                                 | No.<br>referred for<br>treatment. | No. requiring<br>to be kept<br>under<br>observation. | No.<br>referred for<br>treatment. | No. requiring to be<br>kept under<br>observation, but<br>not referred for<br>treatment. |
| Malnutrition.....                               | 9                                 | 17                                                   | 21                                | 9                                                                                       |
| Uncleanliness, head .....                       | ..                                | ..                                                   | ..                                | ..                                                                                      |
| "    body .....                                 | ..                                | ..                                                   | ..                                | ..                                                                                      |
| (See Table IV., Group V).                       |                                   |                                                      |                                   |                                                                                         |
| Skin—                                           |                                   |                                                      |                                   |                                                                                         |
| Ringworm, head .....                            | 5                                 | ..                                                   | 43                                | ..                                                                                      |
| "    body .....                                 | 2                                 | 1                                                    | 71                                | 1                                                                                       |
| Scabies .....                                   | 19                                | ..                                                   | 121                               | ..                                                                                      |
| Impetigo .....                                  | 107                               | 2                                                    | 1226                              | ..                                                                                      |
| Other Diseases (Non-Tubercular)                 | 137                               | 6                                                    | 1703                              | 1                                                                                       |
| Eye—                                            |                                   |                                                      |                                   |                                                                                         |
| Blepharitis .....                               | 25                                | 2                                                    | 144                               | 2                                                                                       |
| Conjunctivitis .....                            | 27                                | 1                                                    | 687                               | ..                                                                                      |
| Keratitis .....                                 | 3                                 | ..                                                   | 22                                | ..                                                                                      |
| Corneal Ulcer .....                             | 1                                 | ..                                                   | 10                                | ..                                                                                      |
| Corneal Opacities .....                         | 4                                 | ..                                                   | 1                                 | ..                                                                                      |
| Defective Vision .....                          | 874                               | 7                                                    | 150                               | 6                                                                                       |
| Squint .....                                    | 152                               | 3                                                    | 36                                | ..                                                                                      |
| Other Conditions .....                          | 18                                | ..                                                   | 99                                | 1                                                                                       |
| Ear—                                            |                                   |                                                      |                                   |                                                                                         |
| Defective Hearing .....                         | 56                                | 84                                                   | 171                               | 25                                                                                      |
| Otitis Media .....                              | 91                                | 59                                                   | 566                               | 18                                                                                      |
| Other Ear Diseases .....                        | 37                                | 25                                                   | 59                                | 5                                                                                       |
| Nose and Throat—                                |                                   |                                                      |                                   |                                                                                         |
| Enlarged Tonsils.....                           | 276                               | 277                                                  | 425                               | 104                                                                                     |
| Adenoids.....                                   | 73                                | 95                                                   | 185                               | 52                                                                                      |
| Enlarged Tonsils and Adenoids.                  | 377                               | 141                                                  | 914                               | 77                                                                                      |
| Other Conditions .....                          | 128                               | 61                                                   | 338                               | 36                                                                                      |
| Enlarged Cervical Glands (Non-Tubercular) ..... | 46                                | 37                                                   | 250                               | 20                                                                                      |
| Defective Speech .....                          | 21                                | 12                                                   | 16                                | 4                                                                                       |
| Teeth—Dental Disease .....                      | 854                               | 1                                                    | 149                               | ..                                                                                      |
| Heart and Circulation—                          |                                   |                                                      |                                   |                                                                                         |
| Heart Disease, Organic .....                    | 5                                 | 16                                                   | 58                                | 72                                                                                      |
| "    "    Functional .....                      | 30                                | 171                                                  | 67                                | 100                                                                                     |
| Anæmia .....                                    | 89                                | 60                                                   | 99                                | 37                                                                                      |

TABLE II—Continued.

A.—RETURN OF DEFECTS FOUND IN THE COURSE OF MEDICAL  
INSPECTION IN 1929.

| DEFECTS OR DISEASES.                   | ROUTINE<br>INSPECTION.            |                                                      | SPECIALS.                         |                                                                                         |
|----------------------------------------|-----------------------------------|------------------------------------------------------|-----------------------------------|-----------------------------------------------------------------------------------------|
|                                        | No.<br>referred for<br>treatment. | No. requiring<br>to be kept<br>under<br>observation. | No.<br>referred for<br>treatment. | No. requiring to be<br>kept under<br>observation, but<br>not referred for<br>treatment. |
| <b>Lungs—</b>                          |                                   |                                                      |                                   |                                                                                         |
| Bronchitis.....                        | 118                               | 112                                                  | 353                               | 168                                                                                     |
| Other Non-Tubercular Diseases.         | 11                                | 8                                                    | 58                                | 15                                                                                      |
| <b>Tuberculosis—</b>                   |                                   |                                                      |                                   |                                                                                         |
| Pulmonary, Definite .....              | 1                                 | ..                                                   | 6                                 | 10                                                                                      |
| „ Suspected .....                      | 16                                | 14                                                   | 51                                | 58                                                                                      |
| Non-Pulmonary, Glands.....             | 6                                 | 4                                                    | 14                                | 7                                                                                       |
| „ Spine .....                          | ..                                | 1                                                    | 3                                 | 1                                                                                       |
| Hip .....                              | 1                                 | ..                                                   | 7                                 | ..                                                                                      |
| Other Bones and Joints.....            | 1                                 | ..                                                   | 5                                 | 1                                                                                       |
| Skin .....                             | 1                                 | ..                                                   | 9                                 | ..                                                                                      |
| Other Forms .....                      | 3                                 | ..                                                   | 13                                | 5                                                                                       |
| <b>Nervous System—</b>                 |                                   |                                                      |                                   |                                                                                         |
| Epilepsy .....                         | 4                                 | ..                                                   | 22                                | 8                                                                                       |
| Chorea.....                            | 14                                | 8                                                    | 108                               | 36                                                                                      |
| Other Conditions .....                 | 36                                | 13                                                   | 48                                | 14                                                                                      |
| <b>Deformities—</b>                    |                                   |                                                      |                                   |                                                                                         |
| Rickets .....                          | 40                                | 25                                                   | 39                                | 12                                                                                      |
| Spinal Curvature .....                 | 6                                 | 4                                                    | 9                                 | 4                                                                                       |
| Other Forms .....                      | 36                                | 11                                                   | 29                                | 4                                                                                       |
| <b>Other Defects or Diseases .....</b> | <b>400</b>                        | <b>93</b>                                            | <b>802</b>                        | <b>77</b>                                                                               |
| <b>Delicate .....</b>                  | <b>175</b>                        | <b>88</b>                                            | <b>193</b>                        | <b>54</b>                                                                               |
| <b>Mentally Defective .....</b>        | <b>8</b>                          | <b>14</b>                                            | <b>7</b>                          | <b>10</b>                                                                               |
| <b>Dull and Backward .....</b>         | <b>2</b>                          | <b>6</b>                                             | <b>7</b>                          |                                                                                         |



TABLE II—Continued.

B.—NUMBER OF INDIVIDUAL CHILDREN FOUND AT ROUTINE MEDICAL INSPECTION TO REQUIRE TREATMENT (EXCLUDING UNCLEANLINESS AND DENTAL DISEASES).

| Group.                          | Number of Children. |                             | Percentage of Children Found to Require Treatment. |
|---------------------------------|---------------------|-----------------------------|----------------------------------------------------|
|                                 | Inspected.          | Found to Require Treatment. |                                                    |
| Code Groups—                    |                     |                             | Per cent.                                          |
| Entrants .....                  | 3340                | 836                         | 25.03                                              |
| Intermediates .....             | 4559                | 1316                        | 28.86                                              |
| Leavers .....                   | 2932                | 724                         | 24.69                                              |
| Total (Code Groups) .....       | 10831               | 2876                        | 26.55                                              |
| Other Routine Inspections ..... | ..                  | ..                          | ..                                                 |

TABLE II—Continued.

## C.—DETAILS OF RE-EXAMINATION OF CHILDREN IN CODE GROUPS.

| Defects or Diseases.                            | Had Treatment. | Not had Treatment. |
|-------------------------------------------------|----------------|--------------------|
| Malnutrition.....                               | 8              | 6                  |
| Uncleanliness, head .....                       | 7              | ..                 |
| „ body .....                                    | 14             | 3                  |
| Skin—                                           |                |                    |
| Ringworm, head .....                            | 2              | 1                  |
| „ body .....                                    | 8              | 2                  |
| Scabies .....                                   | 18             | ..                 |
| Impetigo .....                                  | 103            | 10                 |
| Other Diseases (Non-Tubercular) .....           | 86             | 11                 |
| Eye—                                            |                |                    |
| Blepharitis .....                               | 21             | 4                  |
| Conjunctivitis .....                            | 24             | 3                  |
| Keratitis .....                                 | 2              | ..                 |
| Corneal Ulcer .....                             | 1              | ..                 |
| Corneal Opacities .....                         | 1              | ..                 |
| Defective Vision .....                          | 368            | 414                |
| Squint .....                                    | 27             | 23                 |
| Other Conditions .....                          | 14             | 3                  |
| Ear—                                            |                |                    |
| Defective Hearing .....                         | 46             | 22                 |
| Otitis Media .....                              | 94             | 19                 |
| Other Ear Diseases .....                        | 51             | 7                  |
| Nose and Throat—                                |                |                    |
| Enlarged Tonsils.....                           | 206            | 226                |
| Adenoids.....                                   | 45             | 35                 |
| Enlarged Tonsils and Adenoids .....             | 279            | 183                |
| Other Conditions .....                          | 86             | 22                 |
| Enlarged Cervical Glands (Non-Tubercular) ..... | 33             | 11                 |
| Defective Speech .....                          | 7              | 7                  |
| Teeth—Dental Disease .....                      | 392            | 368                |
| Heart and Circulation—                          |                |                    |
| Heart Disease, Organic .....                    | 4              | 1                  |
| „ „ Functional .....                            | 78             | 34                 |
| Anæmia .....                                    | 29             | 29                 |
| Lungs—                                          |                |                    |
| Bronchitis.....                                 | 166            | 45                 |
| Other Non-Tubercular Diseases .....             | 3              | 2                  |
| Tuberculosis—                                   |                |                    |
| Pulmonary, Definite.....                        | 1              | ..                 |
| „ Suspected.....                                | 4              | ..                 |
| Non-Pulmonary, Glands.....                      | 4              | ..                 |
| „ Spine .....                                   | 1              | ..                 |
| „ Hip .....                                     | ..             | ..                 |
| „ Other Bones and Joints ...                    | 1              | ..                 |
| „ Skin .....                                    | 1              | ..                 |
| „ Other Forms .....                             | 2              | ..                 |
| Nervous System—                                 |                |                    |
| Epilepsy .....                                  | 2              | ..                 |
| Chorea.....                                     | 23             | 1                  |
| Other Conditions .....                          | 16             | 5                  |
| Deformities—                                    |                |                    |
| Rickets .....                                   | 16             | 25                 |
| Spinal Curvature .....                          | 4              | 4                  |
| Other Forms .....                               | 17             | ..                 |
| Other Defects or Diseases .....                 | 190            | 75                 |
| Delicate .....                                  | 96             | 36                 |
| Mentally Defective .....                        | 8              | 2                  |
| Dull and Backward .....                         | 9              | ..                 |
| Number of Children Re-Examined .....            | 3,882          |                    |
| Had Treatment.....                              | 2,396          | =61.72 per cent.   |
| Not had Treatment .....                         | 1,486          |                    |

TABLE III.

## RETURN OF ALL EXCEPTIONAL CHILDREN IN THE AREA.

|                                                       |                                                                                        |                                                                   | Boys. | Girls. | Total. |
|-------------------------------------------------------|----------------------------------------------------------------------------------------|-------------------------------------------------------------------|-------|--------|--------|
| Blind<br>(including partially blind).                 | (i.) Suitable for training in a School or Class for the totally blind.                 | Attending Certified Schools or Classes for the Blind....          | 5     | 4      | 9      |
|                                                       |                                                                                        | Attending Public Elementary Schools .....                         | ..    | ..     | ..     |
|                                                       |                                                                                        | At other Institutions.....                                        | ..    | ..     | ..     |
|                                                       |                                                                                        | At no School or Institution..                                     | ..    | ..     | ..     |
|                                                       | (ii.) Suitable for training in a School or Class for the partially blind.              | Attending Certified Schools or Classes for the Blind....          | 36    | 39     | 75     |
|                                                       |                                                                                        | Attending Public Elementary Schools .....                         | ..    | ..     | ..     |
|                                                       |                                                                                        | At other Institutions.....                                        | ..    | ..     | ..     |
|                                                       |                                                                                        | At no School or Institution..                                     | ..    | ..     | ..     |
| Deaf<br>(including deaf and dumb and partially deaf). | (i.) Suitable for training in a School or Class for the totally deaf or deaf and dumb. | Attending Certified Schools or Classes for the Deaf....           | 16    | 13     | 29     |
|                                                       |                                                                                        | Attending Public Elementary Schools .....                         | 1     | ..     | 1      |
|                                                       |                                                                                        | At other Institutions.....                                        | ..    | ..     | ..     |
|                                                       |                                                                                        | At no School or Institution..                                     | 2     | 3      | 5      |
|                                                       | (ii.) Suitable for training in a School or Class for the partially deaf.               | Attending Certified Schools or Classes for the Deaf....           | ..    | ..     | ..     |
|                                                       |                                                                                        | Attending Public Elementary Schools .....                         | 1     | ..     | 1      |
|                                                       |                                                                                        | At other Institutions .....                                       | ..    | ..     | ..     |
|                                                       |                                                                                        | At no School or Institution..                                     | 1     | ..     | 1      |
| <i>Mentally Defective.</i>                            | Feeble-minded (cases not notifiable to the Local Control Authority).                   | Attending Certified Schools for Mentally Defective Children ..... | 1     | 1      | 2      |
|                                                       |                                                                                        | Attending Public Elementary Schools .....                         | 32    | 28     | 60     |
|                                                       |                                                                                        | At other Institutions.....                                        | 1     | 1      | 2      |
|                                                       |                                                                                        | At no School or Institution..                                     | 47    | 36     | 83     |
|                                                       | Notified to the Local Control Authority during the year                                | Feeble-minded .....                                               | 1     | 2      | 3      |
|                                                       |                                                                                        | Imbeciles .....                                                   | 5     | 3      | 8      |
|                                                       |                                                                                        | Moral Imbeciles .....                                             | ..    | ..     | ..     |
|                                                       |                                                                                        | Idiots .....                                                      | 1     | ..     | 1      |
| Epileptics.                                           | Suffering from severe Epilepsy.                                                        | Attending Certified Special Schools for Epileptics.....           | 7     | 4      | 11     |
|                                                       |                                                                                        | In Institutions other than Certified Special Schools....          | ..    | ..     | ..     |
|                                                       |                                                                                        | Attending Public Elementary Schools .....                         | 2     | 6      | 8      |
|                                                       |                                                                                        | At no School or Institution..                                     | 15    | 12     | 27     |
|                                                       | Suffering from Epilepsy which is not severe.                                           | Attending Public Elementary Schools .....                         | 22    | 12     | 34     |
|                                                       |                                                                                        | At no School or Institution..                                     | 3     | 1      | 4      |



TABLE III—Continued.

## RETURN OF ALL EXCEPTIONAL CHILDREN IN THE AREA.

|                       |                                                                                                                                                                             |                                                                                          | Boys. | Girls. | Total. |
|-----------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------|-------|--------|--------|
| Physically Defective. | Infectious pulmonary and glandular tuberculosis.                                                                                                                            | At Sanatoria or Sanatorium Schools approved by the Ministry of Health or the Board ..... | 9     | 5      | 14     |
|                       |                                                                                                                                                                             | At other Institutions.....                                                               | ..    | ..     | ..     |
|                       |                                                                                                                                                                             | At no School or Institution..                                                            | 1     | ..     | 1      |
|                       | Non-infectious but active pulmonary and glandular tuberculosis.                                                                                                             | At Sanatoria or Sanatorium Schools approved by the Ministry of Health or the Board ..... | ..    | ..     | ..     |
|                       |                                                                                                                                                                             | At Certified Residential Open Air Schools .....                                          | ..    | ..     | ..     |
|                       |                                                                                                                                                                             | At Certified Day Open Air Schools .....                                                  | ..    | ..     | ..     |
|                       |                                                                                                                                                                             | At Public Elementary Schools.                                                            | ..    | 1      | 1      |
|                       |                                                                                                                                                                             | At other Institutions.....                                                               | ..    | ..     | ..     |
|                       |                                                                                                                                                                             | At no School or Institution..                                                            | 1     | 1      | 2      |
|                       | Delicate children ( <i>e.g.</i> , pre or latent tuberculosis, malnutrition, debility, anæmia, etc.).                                                                        | At Certified Residential Open Air Schools .....                                          | ..    | ..     | ..     |
|                       |                                                                                                                                                                             | At Certified Day Open Air Schools .....                                                  | 100   | 94     | 194    |
|                       |                                                                                                                                                                             | At Public Elementary Schools.                                                            | 58    | 56     | 114    |
|                       |                                                                                                                                                                             | At other Institutions.....                                                               | ..    | ..     | ..     |
|                       |                                                                                                                                                                             | At no School or Institution..                                                            | 13    | 12     | 25     |
|                       | Active non-pulmonary tuberculosis.                                                                                                                                          | At Sanatoria or Hospital Schools approved by the Ministry of Health or the Board .....   | 3     | 1      | 4      |
|                       |                                                                                                                                                                             | At Public Elementary Schools.                                                            | ..    | ..     | ..     |
|                       |                                                                                                                                                                             | At other Institutions.....                                                               | ..    | ..     | ..     |
|                       |                                                                                                                                                                             | At no School or Institution..                                                            | 6     | ..     | 6      |
|                       | Crippled Children (other than those with active tuberculous Disease), <i>e.g.</i> , children suffering from paralysis, etc., and including those with severe heart disease. | At Certified Hospital Schools.                                                           | ..    | ..     | ..     |
|                       |                                                                                                                                                                             | At Certified Residential Cripple Schools .....                                           | 18    | 13     | 31     |
|                       |                                                                                                                                                                             | At Certified Day Cripple Schools .....                                                   | ..    | ..     | ..     |
|                       |                                                                                                                                                                             | At Public Elementary Schools.                                                            | 56    | 44     | 100    |
|                       |                                                                                                                                                                             | At other Institutions.....                                                               | 1     | 1      | 2      |
|                       |                                                                                                                                                                             | At no School or Institution..                                                            | 24    | 37     | 61     |

TABLE IIIa.

MENTALLY DEFECTIVE CHILDREN EXAMINED DURING 1929 BY THE  
MEDICAL OFFICER.

|                                            | Boys. | Girls. | Total. |
|--------------------------------------------|-------|--------|--------|
| Mental Defective and Partially Blind ..... | ..    | 1      | 1      |
| Idiots .....                               | 2     | 1      | 3      |
| Imbeciles .....                            | 12    | 6      | 18     |
| Mental Defectives.....                     | 25    | 28     | 53     |
| Dull and Backward .....                    | 9     | 9      | 18     |
| Found Normal .....                         | 1     | ..     | 1      |
| Total .....                                | 49    | 45     | 94     |

| Recommended for                             | Boys. | Girls. | Total. |
|---------------------------------------------|-------|--------|--------|
| Special Residential School for M.D.'s ..... | ..    | 1      | 1      |
| „ Day School for M.D.'s .....               | 22    | 24     | 46     |
| „ Resident Institution for M.D.'s.....      | 3     | 3      | 6      |
| „ „ „ Idiots and Imbeciles                  | 14    | 7      | 21     |
| Residential School for Blind M.D.'s.....    | ..    | 1      | 1      |
| Special Class for Dull and Backward.....    | 7     | 7      | 14     |
| Ordinary School .....                       | 3     | 2      | 5      |
| Total .....                                 | 49    | 45     | 94     |

PHYSICALLY DEFECTIVE CHILDREN  
(CRIPPLES, EPILEPTICS, ETC.).

|                                          | Boys. | Girls. | Total. |
|------------------------------------------|-------|--------|--------|
| Epileptics (Definite or Suspected) ..... | 11    | 4      | 15     |
| Tuberculosis (Pulmonary).....            | ..    | ..     | ..     |
| „ (Non-Pulmonary) .....                  | 6     | 4      | 10     |
| Rickets.....                             | 3     | 1      | 4      |
| Spinal Curvature .....                   | ..    | 2      | 2      |
| Infantile Paralysis .....                | 2     | 2      | 4      |
| Paralysis other than Infantile.....      | 2     | 3      | 5      |
| Heart Disease .....                      | 2     | 2      | 4      |
| Congenital Malformation .....            | ..    | 1      | 1      |
| Post Encephalitis Lethargica .....       | 4     | 3      | 7      |
| Blind (Partially) .....                  | 1     | ..     | 1      |
| Total .....                              | 31    | 22     | 53     |

**TABLE IIIa—Continued.**

| Recommended for                                                        | Boys.     | Girls.    | Total.    |
|------------------------------------------------------------------------|-----------|-----------|-----------|
| Special Residential Institution for Post Encephalitis Lethargica ..... | 1         | 3         | 4         |
| Special Residential School for Epileptics .....                        | 7         | 3         | 10        |
| "    "    "    Cripples.....                                           | 1         | ..        | 1         |
| "    Day Cripple School .....                                          | 10        | 13        | 23        |
| Special Residential School for Deaf.....                               | ..        | ..        | ..        |
| Special Residential School for Blind .....                             | 1         | ..        | 1         |
| Hospital School for Non-Pulmonary Tuberculosis                         | 4         | 1         | 5         |
| Day Open Air School .....                                              | ..        | 1         | 1         |
| Unsuitable for any School .....                                        | 3         | ..        | 3         |
| Ordinary School .....                                                  | 4         | 1         | 5         |
| <b>Total .....</b>                                                     | <b>31</b> | <b>22</b> | <b>53</b> |

**TABLE IV.**

RETURN OF DEFECTS TREATED DURING THE YEAR ENDED  
31ST DECEMBER, 1929.

TREATMENT TABLE.

GROUP I.—MINOR AILMENTS (EXCLUDING UNCLEANLINESS, FOR WHICH SEE GROUP V.).

| Disease or Defect.                                              | Number of Defects Treated or under Treatment during the Year. |            |             |
|-----------------------------------------------------------------|---------------------------------------------------------------|------------|-------------|
|                                                                 | Under the Authority's Scheme.                                 | Otherwise. | Total.      |
| <b>Skin—</b>                                                    |                                                               |            |             |
| Ringworm, Scalp .....                                           | 37                                                            | 6          | 43          |
| "    Body .....                                                 | 63                                                            | 7          | 70          |
| Scabies .....                                                   | 111                                                           | 11         | 122         |
| Impetigo .....                                                  | 1192                                                          | 30         | 1222        |
| Other Skin Diseases .....                                       | 1606                                                          | 88         | 1694        |
| Minor Eye Defects .....                                         | 1097                                                          | 53         | 1150        |
| (External and other, but excluding cases falling in Group II.). |                                                               |            |             |
| Minor Ear Defects .....                                         | 729                                                           | 47         | 776         |
| Miscellaneous .....                                             | 396                                                           | 41         | 437         |
| (Minor Injuries, Bruises, Sores, etc.)                          |                                                               |            |             |
| <b>Total.....</b>                                               | <b>5231</b>                                                   | <b>283</b> | <b>5514</b> |



GROUP II.—DEFECTIVE VISION AND SQUINT, EXCLUDING MINOR EYE DEFECTS  
TREATED AS MINOR AILMENTS (GROUP I.).

| Defect or Disease.                                                                 | Number of Defects dealt with. |                                                                                                    |            | Total |
|------------------------------------------------------------------------------------|-------------------------------|----------------------------------------------------------------------------------------------------|------------|-------|
|                                                                                    | Under the Authority's Scheme. | Submitted to refraction by Private Practitioner or at Hospital, apart from the Authority's Scheme. | Otherwise. |       |
| Errors of Refraction (including Squint) .....                                      | 1699                          | ..                                                                                                 | ..         | 1699  |
| Other Defects or Diseases of the Eyes (excluding those recorded in Group I.) ..... | 116                           | ..                                                                                                 | ..         | 116   |
| Total .....                                                                        | 1815                          | ..                                                                                                 | ..         | 1815  |

Total number of children for whom spectacles were prescribed:—

- (a) Under the Authority's Scheme ..... 1127  
 (b) Otherwise..... —

Total number of children who obtained or received spectacles:—

- (a) Under the Authority's Scheme..... 1113  
 (b) Otherwise..... —

GROUP III.—TREATMENT OF DEFECTS OF NOSE AND THROAT.

| Received Operative Treatment.                       |                                                                         |        |                                    |                       |
|-----------------------------------------------------|-------------------------------------------------------------------------|--------|------------------------------------|-----------------------|
| Under the Authority's Scheme in Clinic or Hospital. | By Private Practitioner or Hospital, apart from the Authority's Scheme. | Total. | Received other Forms of Treatment. | Total Number Treated. |
| 432                                                 | 274                                                                     | 706    | 256                                | 962                   |

GROUP IV.—DENTAL DEFECTS.

| (1) Number of children who were :—                                                                     |   | Number           |
|--------------------------------------------------------------------------------------------------------|---|------------------|
| (a) Inspected by the Dentist :                                                                         |   | of               |
| Aged:                                                                                                  |   | Children. Total. |
| Routine Age Groups, 5 years.....                                                                       |   | —                |
| 6                                                                                                      | „ | 2,623            |
| 7                                                                                                      | „ | 2,939            |
| 8                                                                                                      | „ | 3,004            |
| 9                                                                                                      | „ | 3,221            |
| 10                                                                                                     | „ | 1,799            |
| 11                                                                                                     | „ | 1,526            |
| 12                                                                                                     | „ | 1,170            |
| 13                                                                                                     | „ | 893              |
| 14                                                                                                     | „ | 83               |
| Specials .....                                                                                         |   | 17,258           |
| Grand Total .....                                                                                      |   | 1,680            |
|                                                                                                        |   | 18,938           |
| (b) Found to require treatment .....                                                                   |   | 8,256            |
| (c) Actually treated .....                                                                             |   | 6,592            |
| (d) Re-treated during the year as the result of periodical examination (included under (c) above)..... |   | 2,295            |
| (2) Half-days devoted to (a) Inspection .....                                                          |   | 212              |
| (b) Treatment .....                                                                                    |   | 920              |
|                                                                                                        |   | 1,132            |
| (3) Attendances made by children for treatment .....                                                   |   | 9,820            |
| (4) Fillings (a) Permanent Teeth .....                                                                 |   | 3,539            |
| (b) Temporary Teeth .....                                                                              |   | —                |
|                                                                                                        |   | 3,539            |
| (5) Extractions (a) Permanent Teeth .....                                                              |   | 767              |
| (b) Temporary Teeth .....                                                                              |   | 12,364           |
|                                                                                                        |   | 13,131           |
| (6) Administrations of local anæsthetics for extractions.....                                          |   | 11,857           |
| (7) Other operations (a) Permanent Teeth .....                                                         |   | 1,035            |
| (b) Temporary Teeth .....                                                                              |   | 35               |
|                                                                                                        |   | 1,070            |

GROUP V.—UNCLEANLINESS AND VERMINOUS CONDITIONS.

|                                                                                                  |        |
|--------------------------------------------------------------------------------------------------|--------|
| (i.) Average number of visits per School made during the year by the School Nurses .....         | 3      |
| (ii.) Total number of examinations of children in the Schools by the School Nurses .....         | 92,632 |
| (iii.) Number of individual children found unclean.....                                          | 2,126  |
| (iv.) Number of children cleansed under arrangements made by the Local Education Authority ..... | 377    |
| (v.) Number of cases in which legal proceedings were taken :—                                    |        |
| (a) Under the Education Act, 1921 .....                                                          | —      |
| (b) Under School Attendance Byelaws .....                                                        | —      |

RESULTS OF TREATMENT OF DEFECTS OF CHILDREN DISCHARGED  
FROM CLINICS DURING 1929.

| Defects or Diseases.                                | Remedied. | Improved. | No change<br>or no<br>report. | Total. | Percentage<br>remedied. |
|-----------------------------------------------------|-----------|-----------|-------------------------------|--------|-------------------------|
| Malnutrition.....                                   | 14        | 7         | 1                             | 22     | 63.64                   |
| Uncleanliness, head .....                           | 5         | ..        | ..                            | 5      | 100.00                  |
| „ body .....                                        | 1         | ..        | ..                            | 1      | 100.00                  |
| Skin—                                               |           |           |                               |        |                         |
| Ringworm, head .....                                | 38        | ..        | 3                             | 41     | 92.68                   |
| „ body .....                                        | 74        | ..        | ..                            | 74     | 100.00                  |
| Scabies .....                                       | 132       | ..        | ..                            | 132    | 100.00                  |
| Impetigo .....                                      | 1160      | ..        | ..                            | 1160   | 100.00                  |
| Other Diseases—<br>(Non-Tubercular) .....           | 1586      | 2         | 4                             | 1592   | 99.62                   |
| Eye—                                                |           |           |                               |        |                         |
| Blepharitis .....                                   | 141       | ..        | ..                            | 141    | 100.00                  |
| Conjunctivitis .....                                | 775       | ..        | 4                             | 779    | 99.48                   |
| Keratitis .....                                     | 20        | 1         | ..                            | 21     | 95.24                   |
| Corneal Ulcer .....                                 | 11        | 2         | ..                            | 13     | 84.61                   |
| Corneal Opacities .....                             | ..        | 1         | ..                            | 1      | ..                      |
| *Defective Vision .....                             | 75        | 7         | 60                            | 142    | 52.82                   |
| *Squint .....                                       | 20        | 1         | 14                            | 35     | 57.14                   |
| Other Conditions .....                              | 128       | ..        | 1                             | 129    | 99.23                   |
| Ear—                                                |           |           |                               |        |                         |
| Defective Hearing .....                             | 165       | 5         | 5                             | 175    | 94.29                   |
| Otitis Media .....                                  | 323       | 6         | 6                             | 335    | 96.42                   |
| Other Ear Diseases .....                            | 65        | ..        | 1                             | 66     | 98.48                   |
| Nose and Throat —                                   |           |           |                               |        |                         |
| Enlarged Tonsils.....                               | 395       | 12        | 82                            | 489    | 80.78                   |
| Adenoids.....                                       | 154       | 3         | 31                            | 188    | 81.91                   |
| Enlarged Tonsils and Adenoids                       | 818       | 8         | 210                           | 1036   | 78.96                   |
| Other Conditions .....                              | 314       | 12        | 11                            | 337    | 93.18                   |
| Enlarged Cervical Glands—<br>(Non-Tubercular) ..... | 191       | 11        | 5                             | 207    | 92.27                   |
| Defective Speech.....                               | 9         | 9         | 4                             | 22     | 40.91                   |
| *Teeth—Dental Disease.....                          | 41        | ..        | 38                            | 79     | 51.90                   |
| Heart and Circulation—                              |           |           |                               |        |                         |
| Heart Disease, Organic .....                        | ..        | 43        | 6                             | 49     | ..                      |
| „ Functional .....                                  | 79        | 23        | 1                             | 103    | 76.70                   |
| Anæmia .....                                        | 64        | 4         | ..                            | 68     | 94.12                   |

\* These figures include cases coming under the notice of the School Doctor at the Inspection Clinic, and do not include the great bulk of cases treated at the Ophthalmic and Dental Clinics.



RESULTS OF TREATMENT OF DEFECTS OF CHILDREN DISCHARGED  
FROM CLINICS DURING 1929—*Continued.*

| Defects or Diseases.                   | Remedied.   | Improved.  | No change<br>or no<br>report. | Total.      | Percentage<br>remedied. |
|----------------------------------------|-------------|------------|-------------------------------|-------------|-------------------------|
| <b>Lungs—</b>                          |             |            |                               |             |                         |
| Bronchitis.....                        | 332         | 15         | 7                             | 354         | 93.78                   |
| Other Non-Tubercular Diseases          | 52          | 3          | 2                             | 57          | 91.23                   |
| <b>Tuberculosis—</b>                   |             |            |                               |             |                         |
| Pulmonary, Definite .....              | ..          | 1          | 2                             | 3           | ..                      |
| „ Suspected .....                      | 26          | 8          | 2                             | 36          | 72.22                   |
| Non-Pulmonary, Glands .....            | 7           | 8          | 1                             | 16          | 43.75                   |
| „ Spine .....                          | ..          | 1          | ..                            | 1           | ..                      |
| „ Hip .....                            | ..          | 2          | 2                             | 4           | ..                      |
| „ Other Bones<br>and Joints ..         | ..          | 2          | 2                             | 4           | ..                      |
| „ Skin .....                           | 1           | ..         | ..                            | 1           | 100.00                  |
| „ Other Forms ..                       | 6           | ..         | ..                            | 6           | 100.00                  |
| <b>Nervous System—</b>                 |             |            |                               |             |                         |
| Epilepsy .....                         | 5           | 6          | 3                             | 14          | 35.71                   |
| Chorea.....                            | 75          | 4          | 2                             | 81          | 92.59                   |
| Other Conditions .....                 | 39          | 5          | 5                             | 49          | 79.59                   |
| <b>Deformities—</b>                    |             |            |                               |             |                         |
| Rickets .....                          | 21          | 5          | 3                             | 29          | 72.41                   |
| Spinal Curvature .....                 | 3           | 8          | 2                             | 13          | 23.08                   |
| Other Forms .....                      | 4           | 7          | 2                             | 13          | 30.77                   |
| <b>Other Defects or Diseases .....</b> | <b>731</b>  | <b>14</b>  | <b>13</b>                     | <b>758</b>  | <b>96.44</b>            |
| <b>Delicate .....</b>                  | <b>113</b>  | <b>8</b>   | <b>5</b>                      | <b>126</b>  | <b>89.68</b>            |
| <b>Mentally Defective .....</b>        | <b>..</b>   | <b>6</b>   | <b>..</b>                     | <b>6</b>    | <b>..</b>               |
| <b>Dull and Backward .....</b>         | <b>5</b>    | <b>1</b>   | <b>..</b>                     | <b>6</b>    | <b>83.33</b>            |
| <b>Total .....</b>                     | <b>8218</b> | <b>261</b> | <b>540</b>                    | <b>9019</b> | <b>91.12</b>            |

**TABLE V.**

SUMMARY OF TREATMENT OF DEFECTS SHOWN IN TABLE IV.

(GROUPS I., II., III. AND IV.)

| Disease or Defect.          | Number of Children.           |                                                    |            |              |
|-----------------------------|-------------------------------|----------------------------------------------------|------------|--------------|
|                             | Referred<br>for<br>Treatment. | Treated.                                           |            |              |
|                             |                               | Under Local<br>Education<br>Authority's<br>Scheme. | Otherwise. | Total.       |
| Minor Ailments .....        | 6953                          | 5231                                               | 283        | 5514         |
| Visual Defects .....        | 1815                          | 1699                                               | ..         | 1699         |
| Defects of Nose and Throat. | 2716                          | 432                                                | 530        | 962          |
| Dental Defects .....        | 8256                          | 6592                                               | ..         | 6592         |
| Other Defects .....         | 4001                          | 1657                                               | ..         | 1657         |
| <b>Total .....</b>          | <b>23741</b>                  | <b>15611</b>                                       | <b>813</b> | <b>16424</b> |

**TABLE VI.**

**SUMMARY RELATING TO CHILDREN MEDICALLY INSPECTED AT THE  
ROUTINE INSPECTIONS DURING THE YEAR 1929.**

|                                                                                                                                                                                                 |       |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------|
| (1) The total number of children medically inspected at the routine inspections .....                                                                                                           | 10831 |
| 2) The number of children in (1) suffering from—                                                                                                                                                |       |
| Malnutrition .....                                                                                                                                                                              | 26    |
| Skin Disease .....                                                                                                                                                                              | 279   |
| Defective Vision (including Squint) .....                                                                                                                                                       | 1036  |
| Eye Disease .....                                                                                                                                                                               | 81    |
| Defective Hearing .....                                                                                                                                                                         | 140   |
| Ear Disease .....                                                                                                                                                                               | 212   |
| Nose and Throat Disease .....                                                                                                                                                                   | 1428  |
| Enlarged Cervical Glands (Non-Tubercular) .....                                                                                                                                                 | 83    |
| Defective Speech .....                                                                                                                                                                          | 33    |
| Dental Disease .....                                                                                                                                                                            | 855   |
| Heart Disease—                                                                                                                                                                                  |       |
| Organic .....                                                                                                                                                                                   | 21    |
| Functional.....                                                                                                                                                                                 | 201   |
| Anæmia .....                                                                                                                                                                                    | 149   |
| Lung Disease (Non-Tubercular) .....                                                                                                                                                             | 249   |
| Tuberculosis—                                                                                                                                                                                   |       |
| Pulmonary, Definite .....                                                                                                                                                                       | 1     |
| „ Suspected .....                                                                                                                                                                               | 30    |
| Non-pulmonary .....                                                                                                                                                                             | 17    |
| Disease of the Nervous System.....                                                                                                                                                              | 75    |
| Deformities .....                                                                                                                                                                               | 122   |
| Other Defects and Diseases .....                                                                                                                                                                | 786   |
| (3) The number of children in (1) suffering from defects (other than uncleanliness or defective clothing or footgear) who require to be kept under observation (but not referred for treatment) | 1072  |
| (4) The number of children in (1) who were referred for treatment (excluding uncleanliness, defective clothing, etc.).....                                                                      | 3463  |
| (5) The number of children in (4) who received treatment for one or more defects (excluding uncleanliness, defective clothing, etc.)                                                            | 2375  |



**TABLE Ia.**

NUMBER OF CHILDREN IN SECONDARY SCHOOLS INSPECTED  
DURING 1929.

**A.—ROUTINE MEDICAL INSPECTION.**

|             | Prepara-<br>tory. | Entrants. |     | Intermediates. |     | Leavers. |    | Totals. |
|-------------|-------------------|-----------|-----|----------------|-----|----------|----|---------|
|             |                   | 12        | 13  | 14             | 15  | 16       | 17 |         |
| Boys .....  | 31                | 78        | 85  | 145            | 115 | 21       | 5  | 480     |
| Girls ..... | 322               | 220       | 286 | 200            | 146 | 85       | 59 | 1318    |
| Total ...   | 353               | 298       | 371 | 345            | 261 | 106      | 64 | 1798    |

**B.—SPECIAL INSPECTIONS.**

|              | Special Cases. | Re-examinations (i.e., No.<br>of Children re-examined). |
|--------------|----------------|---------------------------------------------------------|
| Boys .....   | ..             | 118                                                     |
| Girls .....  | ..             | 101                                                     |
| Totals ..... | ..             | 219                                                     |

**C.—TOTAL NUMBER OF INDIVIDUAL CHILDREN INSPECTED BY THE MEDICAL OFFICER WHETHER AS ROUTINE OR SPECIAL CASES.**

(No child to be counted more than once in a year.)

Number of Individual Children Inspected ..... 1798

TABLE IIa.

## A.—ROUTINE INSPECTION OF SECONDARY SCHOOLS.

| Defects or Diseases.                         | No. referred for Treatment. | No. requiring to be kept under observation. |
|----------------------------------------------|-----------------------------|---------------------------------------------|
| Malnutrition.....                            | ..                          | ..                                          |
| Uncleanliness, head .....                    | 47                          | ..                                          |
| „ body .....                                 | 1                           | ..                                          |
| Skin—                                        |                             |                                             |
| Ringworm, head .....                         | 1                           | ..                                          |
| „ body .....                                 | 2                           | ..                                          |
| Scabies .....                                | ..                          | ..                                          |
| Impetigo .....                               | 1                           | ..                                          |
| Other Diseases (Non-Tubercular).....         | 39                          | 3                                           |
| Eye—                                         |                             |                                             |
| Blepharitis .....                            | 6                           | 1                                           |
| Conjunctivitis .....                         | 2                           | ..                                          |
| Keratitis .....                              | ..                          | ..                                          |
| Corneal Ulcer .....                          | 1                           | ..                                          |
| Corneal Opacities .....                      | ..                          | 2                                           |
| Defective Vision .....                       | 161                         | 81                                          |
| Squint ..                                    | 3                           | 3                                           |
| Other Conditions .....                       | ..                          | 1                                           |
| Ear—                                         |                             |                                             |
| Defective Hearing .....                      | 8                           | 1                                           |
| Otitis Media .....                           | 12                          | ..                                          |
| Other Ear Diseases .....                     | 2                           | ..                                          |
| Nose and Throat—                             |                             |                                             |
| Enlarged Tonsils.....                        | 46                          | 15                                          |
| Adenoids.....                                | 12                          | 3                                           |
| Enlarged Tonsils and Adenoids .....          | 10                          | 3                                           |
| Other Conditions .....                       | 12                          | 2                                           |
| Enlarged Cervical Glands (Non-Tubercular)..< | 10                          | 7                                           |
| Defective Speech .....                       | 2                           | 2                                           |
| Teeth—Dental Disease .....                   | 208                         | ..                                          |
| Heart and Circulation—                       |                             |                                             |
| Heart Disease, Organic .....                 | 13                          | 9                                           |
| „ „ Functional .....                         | 11                          | 45                                          |
| Anæmia .....                                 | 1                           | 1                                           |
| Lungs—                                       |                             |                                             |
| Bronchitis.....                              | 17                          | 8                                           |
| Other Non-Tubercular Diseases .....          | 1                           | 2                                           |

TABLE IIa—Continued.

| Defects or Diseases.                                                                                                            | No. referred<br>for<br>Treatment. | No. requiring to<br>be kept under<br>observation. |
|---------------------------------------------------------------------------------------------------------------------------------|-----------------------------------|---------------------------------------------------|
| <b>Tuberculosis—</b>                                                                                                            |                                   |                                                   |
| Pulmonary, Definite .....                                                                                                       | ..                                | ..                                                |
| ,, Suspected .....                                                                                                              | ..                                | 1                                                 |
| Non-Pulmonary, Glands.....                                                                                                      | 1                                 | 2                                                 |
| ,, Spine .....                                                                                                                  | ..                                | ..                                                |
| ,, Hip .....                                                                                                                    | ..                                | ..                                                |
| ,, Other Bones and Joints.                                                                                                      | ..                                | ..                                                |
| ,, Skin .....                                                                                                                   | 1                                 | ..                                                |
| ,, Other Forms .....                                                                                                            | ..                                | ..                                                |
| <b>Nervous System—</b>                                                                                                          |                                   |                                                   |
| Epilepsy .....                                                                                                                  | ..                                | ..                                                |
| Chorea.....                                                                                                                     | ..                                | ..                                                |
| Other Conditions .....                                                                                                          | 7                                 | 13                                                |
| <b>Deformities—</b>                                                                                                             |                                   |                                                   |
| Rickets .....                                                                                                                   | ..                                | 2                                                 |
| Spinal Curvature .....                                                                                                          | 6                                 | 5                                                 |
| Other Forms .....                                                                                                               | 25                                | 14                                                |
| <b>Other Defects or Diseases .....</b>                                                                                          | <b>61</b>                         | <b>43</b>                                         |
| <b>Delicate .....</b>                                                                                                           | <b>2</b>                          | <b>..</b>                                         |
| <b>Mentally Defective .....</b>                                                                                                 | <b>..</b>                         | <b>..</b>                                         |
| <b>Dull and Backward .....</b>                                                                                                  | <b>..</b>                         | <b>1</b>                                          |
| <b>No. of Children Examined.....</b>                                                                                            | <b>1798</b>                       | <b>..</b>                                         |
| <b>No. of Individual Children having Defects<br/>    which required treatment or to be kept<br/>    under observation .....</b> | <b>550</b>                        | <b>211</b>                                        |



**TABLE IIa—Continued.****B.—DETAILS OF RE-EXAMINATION OF CHILDREN IN  
SECONDARY SCHOOLS.**

| Defects or Diseases.                         | Had Treatment. | Not had Treatment. |
|----------------------------------------------|----------------|--------------------|
| Malnutrition.....                            | ..             | ..                 |
| Uncleanliness, head .....                    | 19             | 1                  |
| „ body .....                                 | ..             | ..                 |
| Skin—                                        |                |                    |
| Ringworm, head .....                         | ..             | ..                 |
| „ body .....                                 | 1              | ..                 |
| Scabies .....                                | ..             | ..                 |
| Impetigo .....                               | 1              | ..                 |
| Other Diseases (Non-Tubercular) .....        | 3              | 1                  |
| Eye—                                         |                |                    |
| Blepharitis .....                            | 1              | ..                 |
| Conjunctivitis .....                         | ..             | ..                 |
| Keratitis .....                              | ..             | ..                 |
| Corneal Ulcer .....                          | ..             | ..                 |
| Corneal Opacities .....                      | ..             | ..                 |
| Defective Vision .....                       | 60             | 10                 |
| Squint .....                                 | 1              | ..                 |
| Other Conditions .....                       | ..             | ..                 |
| Ear—                                         |                |                    |
| Defective Hearing .....                      | 3              | ..                 |
| Otitis Media .....                           | 3              | 1                  |
| Other Ear Disease .....                      | ..             | ..                 |
| Nose and Throat—                             |                |                    |
| Enlarged Tonsils.....                        | 4              | 13                 |
| Adenoids.....                                | 2              | 1                  |
| Enlarged Tonsils and Adenoids .....          | 8              | 4                  |
| Other Conditions .....                       | ..             | ..                 |
| Enlarged Cervical Glands (Non-Tubercular) .. | ..             | ..                 |
| Defective Speech .....                       | ..             | ..                 |
| Teeth—                                       |                |                    |
| Dental Disease .....                         | 53             | 24                 |
| Heart and Circulation—                       |                |                    |
| Heart Disease, Organic .....                 | 3              | 1                  |
| „ Functional .....                           | 2              | 2                  |
| Anæmia .....                                 | ..             | ..                 |
| Lungs—                                       |                |                    |
| Tuberculosis, Suspected.....                 | ..             | ..                 |
| Bronchitis.....                              | ..             | ..                 |
| Other Non-Tubercular Diseases .....          | ..             | ..                 |
| Tuberculosis (Non-Pulmonary)—                |                |                    |
| Glands .....                                 | ..             | ..                 |
| Nervous System—                              |                |                    |
| Epilepsy .....                               | ..             | ..                 |
| Chorea.....                                  | ..             | ..                 |
| Other Conditions .....                       | 1              | ..                 |
| Deformities—                                 |                |                    |
| Rickets .....                                | ..             | ..                 |
| Spinal Curvature ..                          | 1              | ..                 |
| Other Forms .....                            | 5              | ..                 |
| Other Defects or Diseases .....              | 13             | 4                  |
| Number of Children Re-examined .....         |                | 219                |
| „ Defects had Treatment .....                |                | 171                |
| „ „ not had Treatment .....                  |                | 48                 |

TABLE IIIa.

TABLE SHOWING PREVALENCE OF PEDICULOSIS IN SECONDARY SCHOOLS  
WHERE ALL THE PUPILS PRESENT WERE EXAMINED.

|                               | BOYS.            |        |      |    |                           | GIRLS.           |        |      |     |                          |
|-------------------------------|------------------|--------|------|----|---------------------------|------------------|--------|------|-----|--------------------------|
|                               | No.<br>Examined. | Heads. |      |    | Vermi-<br>nous<br>bodies. | No.<br>Examined. | Heads. |      |     | Vermi-<br>ous<br>bodies. |
|                               |                  | A.     | B.   | C. |                           |                  | A.     | B.   | C.  |                          |
| (A)<br>Aggregate<br>Numbers.. | 480              | 472    | 8    | .. | ..                        | 1,318            | 1,279  | 37   | 2   | 1                        |
| (B)<br>Percentages..          | ..               | 98·33  | 1·67 | .. | ..                        | ..               | 97·04  | 2·81 | ·15 | ..                       |

TABLE S I.

CHILDREN EXAMINED AT THE INSPECTION CENTRES BY THE MEDICAL  
INSPECTORS.

|                         | Boys. |    | Girls. |    | Total. |
|-------------------------|-------|----|--------|----|--------|
| New Cases.....          | 4733  | .. | 4190   | .. | 8923   |
| Re-examinations .....   | 5415  | .. | 4914   | .. | 10329  |
| Total Examinations .... | 10148 | .. | 9104   | .. | 19252  |

CHILDREN EXAMINED BY THE EYE SPECIALIST.

|                                 | Boys. |    | Girls. |    | Total. |
|---------------------------------|-------|----|--------|----|--------|
| Number examined .....           | 853   | .. | 962    | .. | 1815   |
| Spectacles prescribed for ..... | 556   | .. | 571    | .. | 1127   |
| „ supplied .....                | 550   | .. | 563    | .. | 1113   |

TABLE S I b.

MEDICAL EXAMINATION OF TEACHERS, ETC.

|                                     |     |
|-------------------------------------|-----|
| Teachers .....                      | ..  |
| Intending Teachers .....            | 43  |
| Entrants to Secondary Schools ..... | 349 |
| Other Special Examinations .....    | 306 |

**TABLE 8 IIa.**

**CLASSIFICATION OF SPECIAL CASES.**

**EXAMINED BY THE MEDICAL INSPECTORS, AT THE INSPECTION CENTRES,  
DURING THE YEAR 1929.**

|                                | Boys.        |                  | Girls.       |                  | Total<br>Examina-<br>tions. |
|--------------------------------|--------------|------------------|--------------|------------------|-----------------------------|
|                                | 1st<br>Exam. | Re-<br>examined. | 1st<br>Exam. | Re-<br>examined. |                             |
| Number of cases examined.....  | 4733         | 5415             | 4190         | 4914             | 19252                       |
| Malnutrition . . . . .         | 15           | 6                | 17           | 15               | 53                          |
| Cleanliness, head . . . . .    | 1            | ..               | 5            | 5                | 11                          |
| „ body.....                    | 2            | ..               | 1            | ..               | 3                           |
| Skin—                          |              |                  |              |                  |                             |
| Ringworm, head . . . . .       | 28           | 73               | 16           | 29               | 146                         |
| „ body . . . . .               | 42           | 75               | 29           | 45               | 191                         |
| Impetigo.....                  | 602          | 1033             | 547          | 904              | 3086                        |
| Scabies . . . . .              | 55           | 108              | 74           | 106              | 343                         |
| Alopecia . . . . .             | 26           | 42               | 37           | 58               | 163                         |
| Other Diseases . . . . .       | 999          | 1110             | 629          | 753              | 3491                        |
| Eye—                           |              |                  |              |                  |                             |
| Defective Vision and Squint .. | 117          | 22               | 77           | 19               | 235                         |
| External Eye Disease . . . . . | 479          | 887              | 493          | 977              | 2836                        |
| Ear—                           |              |                  |              |                  |                             |
| Defective Hearing . . . . .    | 100          | 82               | 89           | 77               | 348                         |
| Ear Disease . . . . .          | 328          | 725              | 324          | 751              | 2128                        |
| Teeth—                         |              |                  |              |                  |                             |
| Dental Disease . . . . .       | 65           | 15               | 68           | 14               | 162                         |
| Nose and Throat—               |              |                  |              |                  |                             |
| Enlarged Tonsils . . . . .     | 253          | 205              | 267          | 205              | 930                         |
| Adenoids . . . . .             | 133          | 122              | 111          | 114              | 480                         |
| Enlarged Tonsils and Adenoids  | 517          | 343              | 505          | 332              | 1697                        |
| Tonsillitis . . . . .          | 24           | 36               | 41           | 49               | 150                         |
| Rhinitis . . . . .             | 92           | 139              | 70           | 110              | 411                         |
| Other Diseases . . . . .       | 76           | 54               | 78           | 57               | 265                         |
| Defective Speech . . . . .     | 12           | 16               | 7            | 1                | 36                          |



TABLE S IIa—Continued.

## CLASSIFICATION OF SPECIAL CASES—Continued.

|                                                     | Boys.        |                  | Girls.       |                  | Total<br>Examina-<br>tions. |
|-----------------------------------------------------|--------------|------------------|--------------|------------------|-----------------------------|
|                                                     | 1st<br>Exam. | Re-<br>examined. | 1st<br>Exam. | Re-<br>examined. |                             |
| Heart and Circulation—                              |              |                  |              |                  |                             |
| Organic Disease .....                               | 64           | 87               | 78           | 96               | 325                         |
| Functional Disease .....                            | 97           | 90               | 75           | 75               | 337                         |
| Anæmia .....                                        | 53           | 38               | 78           | 84               | 253                         |
| Lungs—                                              |              |                  |              |                  |                             |
| Pulmonary { Definite .....                          | 6            | 1                | 11           | 3                | 21                          |
| Tuberculosis { Suspected.....                       | 62           | 42               | 52           | 56               | 212                         |
| Chronic Bronchitis .....                            | 274          | 364              | 238          | 255              | 1131                        |
| Other Disease .....                                 | 32           | 34               | 44           | 41               | 151                         |
| Nervous System—                                     |              |                  |              |                  |                             |
| Epilepsy .....                                      | 20           | 21               | 11           | 20               | 72                          |
| Chorea.....                                         | 69           | 113              | 75           | 116              | 373                         |
| Mentally Defective.....                             | 9            | 3                | 11           | 4                | 27                          |
| Other Disease .....                                 | 25           | 24               | 33           | 26               | 108                         |
| Non-Pulmonary Tuberculosis—                         |              |                  |              |                  |                             |
| Glands.....                                         | 7            | 15               | 17           | 21               | 60                          |
| Bones and Joints .....                              | 7            | 5                | 1            | 1                | 14                          |
| Other Forms .....                                   | 18           | 21               | 11           | 8                | 58                          |
| Enlarged Cervical Glands (Non-<br>Tubercular) ..... | 139          | 172              | 131          | 157              | 599                         |
| Delicate .....                                      | 117          | 153              | 136          | 127              | 533                         |
| Rickets .....                                       | 28           | 37               | 27           | 21               | 113                         |
| Deformities .....                                   | 16           | 15               | 28           | 12               | 71                          |
| Other Defects or Diseases .....                     | 407          | 413              | 415          | 393              | 1628                        |
| Dull and Backward .....                             | 7            | 3                | 7            | 2                | 19                          |
| Abscess .....                                       | 42           | 64               | 48           | 80               | 234                         |
| Fit for School .....                                | 7749         | ..               | 6781         | ..               | 14530                       |

TABLE S IIIa.

BLIND, DEAF AND DEFECTIVE CHILDREN.

NEW CASES SENT TO SPECIAL SCHOOLS DURING 1929.

|                                                | Boys. | Girls. | Total. |
|------------------------------------------------|-------|--------|--------|
| To Royal Residential School for the Deaf ..... | 0     | 1      | 1      |
| „ South Bank Sight-saving School..             | 7     | 8      | 15     |
| „ Other Special Schools .....                  | 4     | 3      | 7      |
| TOTALS .....                                   | 11    | 12     | 23     |

TABLE S III b.

TOTAL NUMBER OF CHILDREN MAINTAINED IN INSTITUTIONS, AT THE  
PART COST OF THE COUNCIL, AS AT SEPTEMBER 30TH, 1929.

| Name of Institution.                                              | Boys. | Girls. | Total. |
|-------------------------------------------------------------------|-------|--------|--------|
| Henshaw's Institution for the Blind, Manchester..                 | 3     | 4      | 7      |
| Catholic Blind Asylum, Liverpool .....                            | 1     | ..     | 1      |
| Royal Residential Schools for the Deaf, Manchester.               | 13    | 13     | 26     |
| Jews' Deaf and Dumb Home .....                                    | 1     | ..     | 1      |
| St. John's Institution for the Deaf and Dumb,<br>Boston Spa ..... | 2     | ..     | 2      |
| Soss Moss Epileptic Colony School .....                           | 1     | ..     | 1      |
| Starnthwaite Epileptic Home .....                                 | 6     | ..     | 6      |
| Home for Epileptics, Maghull .....                                | ..    | 3      | 3      |
| „ „ Chalfont St. Peter .....                                      | ..    | 1      | 1      |
| Sandlebridge School for Feeble-minded .....                       | 1     | ..     | 1      |
| Pield Heath House for Mental Defectives,<br>Hillingdon .....      | ..    | 1      | 1      |
| Greengate Hospital and Open Air School .....                      | 17    | 13     | 30     |
| Heatherwood Hospital, Ascot .....                                 | 3     | 1      | 4      |
| Sunshine Home for Blind Babies, Southport ....                    | 1     | ..     | 1      |
| TOTALS .....                                                      | 49    | 36     | 85     |



TABLE S V.

INSPECTION, TREATMENT, ETC., OF CHILDREN DURING 1929.

|                                                                                                                                                                                                                |        |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------|
| (1) The total number of children medically inspected<br>(whether Code Group, special or ailing child) .....                                                                                                    | 19,754 |
| (2) The number of children in (1) suffering from defects<br>(other than uncleanliness or defective clothing or<br>footgear) who require to be kept under observation<br>(but not referred for treatment) ..... | 1,747  |
| (3) The number of children in (1) who were referred for<br>treatment (excluding uncleanliness, defective<br>clothing, etc.) .....                                                                              | 10,333 |
| (4) The number of children in (3) who received treatment<br>for one or more defects (excluding uncleanliness,<br>defective clothing, etc.) .....                                                               | 9,013  |

## SECTION V.

# Report Relating to the Veterinary Inspector's Department.

## DISEASES OF ANIMALS ACTS, 1894—1927.

### Cattle Market.

The Cattle Market was held each market day throughout the year.

The number of cattle and sheep exposed for sale shows an increase on the figures of 1928.

All animals exposed for sale have been inspected, and no animal was found to be affected with any of the scheduled diseases, with the exception of those animals dealt with under Article 12 of the Tuberculosis Order, 1925.

The following table shows the number of animals exposed for sale during the year.

|                                   |         |
|-----------------------------------|---------|
| Irish, Fat and Store Cattle ..... | 26,188  |
| Irish, Dairy Cattle .....         | 3,998   |
| Other Fat and Store Cattle .....  | 36,276  |
| Other Dairy Cattle.....           | 165     |
|                                   | <hr/>   |
|                                   | 66,627  |
|                                   | <hr/>   |
| Irish Sheep .....                 | 11,599  |
| Other Sheep .....                 | 333,377 |
|                                   | <hr/>   |
|                                   | 344,976 |
|                                   | <hr/>   |

The number of motor vehicles used for the conveyance of cattle and sheep to and from the Market is increasing. The newer types of vehicles are generally larger, and although they are possibly advantageous in many ways, some of them are too big for easy manipulation in the alleyways of the Market, with the result that considerable damage is done to the pens through the bumping of these vehicles. They are washed and disinfected at one end of the market and they are frequently examined to ensure that the cleansing and disinfection is carried out in a satisfactory manner.

There are nineteen lairs adjoining the Cattle Market and owned by the Corporation. Ten of these lairs are used solely for the reception of Irish animals, the others being used for animals other than Irish. The reason for this is that imported animals must be kept separate from other animals while in the Market. The lairs are all thoroughly cleansed and disinfected after each occasion on which they are used.

There are six private lairs outside the Market. With one exception, these lairs are used for the temporary detention of cattle consigned to the Manchester Abattoir. The remaining lair is used partly for the detention of animals consigned to the Abattoir and partly for animals consigned to the Cattle Market.

These lairs are regularly inspected and are conducted in a satisfactory manner.



**Importation of Animals Act, 1922.****ANIMALS (LANDING FROM IRELAND, CHANNEL ISLANDS, AND ISLE OF MAN) ORDER, 1923**  
**IRISH ANIMALS (MARKING) ORDER, 1923. No. 2**

A portion of the Cattle Market is authorised for the reception of Imported animals, and such animals while in the Market must be kept separate from all other animals.

A licence authorising the movement must be obtained before these animals are permitted to leave the Market, and they can only be moved to a slaughterhouse or premises other than a market.

This Order was intended to prohibit Imported animals being moved from one market to another, and so prevent the spread of disease in the event of an outbreak of Foot and Mouth Disease. It also facilitates the tracing of all Imported animals in the event of their having been in contact with Foot and Mouth disease.

The supervision and control of these animals adds considerably to the work of the Department. During the year under review, 7,832 licences were issued authorising the movement of approximately 40,000 cattle and 22,000 sheep.

The cattle dealers and butchers co-operate willingly in carrying out the requirements of the Order, and although such a large number of animals have been moved, no serious difficulties have arisen. In one

instance only was it necessary to take proceedings, and in this case summonses were issued against a dealer for the following contraventions :—

1. Failing to move animals licensed in accordance with this Act direct to the premises specified in the licence ;
2. Permitting Irish animals to enter part of the Market other than the authorised part ;
3. Moving animals other than Imported cattle into the authorised Market ;
4. Removing the ear tag from the animals whilst such animals were subject to the provisions of the above Order.

The above prosecution was heard at the City Police Court and the defendant was convicted of the offences charged against him and fined £1 1s. 0d. in each of the four offences, together with £5 5s. 0d. costs.

### **Tuberculosis Order, 1925.**

The only cattle dealt with under the above Order are those dealt with under Article 12, i.e., any bovine animal exposed for sale in a market and suspected to be suffering from tuberculosis within the meaning of the Order.

When such an animal is found in the Market, the owner or person in charge is given the option of either returning the animal to its place of origin, and there reporting it to the local authority for the purpose of having it examined under the Tuberculosis Order, or



having it slaughtered in the Corporation Slaughterhouse at the Cattle Market. Several animals are dealt with each week, and the owners usually decide to have them killed at the Market, as their condition does not usually warrant the expense of returning them to the place of origin. There are some cases, however, where the owner prefers to return the animal and have it examined by his own local authority. Such cases are unsatisfactory, owing to the ease with which substitution could take place and to the possible difference of opinion of the local authority's inspector from that of the inspector at the market.

There is still a considerable trade in old cows, and although a fairly large percentage are found to be tubercular when killed, many of them do not come within the scope of the Order.

There was one prosecution for contravening this Section of the Order. A cow was suspected to be suffering from tubercular emaciation. The owner was of the opinion that the cow was quite healthy, and decided to take it to his farm in Staffordshire, from whence it had come, and there report it to the local authority. It was subsequently ascertained that the cow had not been returned but was sold to a butcher in Manchester.

The owner was charged at the City Police Court for failing to comply with a notice served under Article 12 of the Order, and was convicted of the offence and was fined £10 together with 15s. costs.



### **Foot and Mouth Disease.**

The sporadic outbreaks of Foot and Mouth Disease which have occurred in various parts of the country throughout the year have had no immediate effect here, as none of the outbreaks were near enough to necessitate restrictions being placed on the movement of cattle in the City.

In view of the fact that the cattle exposed for sale in the Market are drawn from a large area, covering practically the whole of England, Wales, and a large part of Ireland, a particular watch is kept on all animals entering the Market.

This is the first year for some time that the Market has remained open the whole year and has not been closed at any time on account of Foot and Mouth Disease.

### **Anthrax Order, 1928.**

Fourteen suspected cases of Anthrax were received during the year and were examined microscopically for Anthrax. In every case the result of the investigation was negative. Most of the suspected cases were in cattle found dead in the railway cattle waggons on arrival in Salford. The cause of death was either injury or suffocation.

### **Parasitic Mange Order, 1911.**

Reports were received of four cases of suspected Parasitic Mange. Each case was investigated and three were declared negative, but the other reported case was diagnosed as Parasitic Mange. This outbreak was in a

stable where one hundred and eighty horses were kept. The affected horse was isolated and treated with a suitable parasiticide. The remaining horses were clipped and examined, and six others were found showing signs of Mange. All the affected horses were segregated and dressed. The remaining horses were kept under close observation, but no others were affected. It was feared that the outbreak might prove troublesome owing to the condition of the stables, which are old and rather dark, but by energetic treatment the premises were declared free about six weeks after the outbreak was confirmed. All the affected horses had recovered and the stables, etc., were thoroughly disinfected.

### **Importation of Dogs and Cats Order, 1928.**

Notice was received from the Customs Officer that forty-four ships were in dock with dogs aboard. These ships were visited, and in each case it was found that the dogs were controlled in accordance with the requirements of the Order.

### **Swine Fever Order, 1908.**

There has been a marked increase in the number of cases of Swine Fever. Twelve cases were dealt with during the year. Ten of these were found in dressed pigs in one of the slaughterhouses and two were in live pigs on premises in the City.

Some of the cases which were found in the slaughterhouse were in pigs which were on licence from Swine Fever-infected premises and others were in pigs from premises where the existence of the disease had not been previously notified.



In each case the Ministry of Agriculture and Fisheries was notified and the conditions of the Order observed.

Apart from the cases dealt with as Swine Fever, a number of pig carcasses were destroyed because they showed signs of some septicæmic disease. In view of the difficulty of arriving at a diagnosis of Swine Fever in the absence of bowel lesions, there is a possibility that some of these may have been Swine Fever. In one instance five carcasses were destroyed as septicæmic. Typical lesions of Swine Fever were shewn, with the exception of the bowel lesions. It was subsequently found that these pigs had been inoculated with Swine Fever serum.

### **Railway Pens and Cattle Trucks.**

The railway pens and cattle trucks have been regularly inspected, and the cleansing and disinfection has been carried out in a satisfactory manner. There were 41,218 cattle trucks cleansed and disinfected during the year.

The number of cattle received into and forwarded out of this City was as follows:—

#### **CATTLE RECEIVED INTO THE CITY.**

| Cattle. | Sheep.  | Pigs. | Calves. | Horses. |
|---------|---------|-------|---------|---------|
| 100,651 | 610,652 | 2,844 | 1,544   | 383     |

#### **FORWARDED OUT OF THE CITY.**

| Cattle. | Sheep.  | Pigs. | Calves. | Horses. |
|---------|---------|-------|---------|---------|
| 32,443  | 158,533 | 154   | 71      | 157     |



## The Milk Supply.

### INSPECTION OF DAIRIES.

There are six hundred and ninety-three persons registered as Retail Purveyors of Milk, and two hundred and twenty-two of these sell bottled milk only. The policy of the Health Committee has been to get as many milk retailers as possible to sell bottled milk only, especially where milk is sold in a shop of the mixed business type. Certain recommendations were made by the Committee with the object of forming a working standard so that each should receive equal consideration. Copies of these recommendations were sent to all milk retailers, but it must be remembered that they are only recommendations, made with the object of forming a working basis, and whenever a case is considered, a decision is always reached after considering the particular merits of the case under review.

The following are the recommendations made by the Health Committee :—

“ 1. Milk must be properly protected from contamination by  
“ dust, etc. Where other goods are exposed for sale in conjunction  
“ with loose milk, a glass case must be provided which shall entirely  
“ encase the vessel containing the milk and shall be fitted with a  
“ door to be kept closed at all times other than when access to the  
“ milk is necessary.

“ 2. The whole of the interior and fittings of the shop must be  
“ kept thoroughly clean and the floor space kept free from boxes,  
“ etc., and washed at least once each day.

“ 3. The following goods must not be exposed for sale in conjunction with loose milk, viz. :—

|                |                                                          |
|----------------|----------------------------------------------------------|
| “ Drapery,     | Rubbing and Cleaning Stones.                             |
| “ Haberdashery | Fish,                                                    |
| “ Hosiery,     | Game,                                                    |
| “ Newspapers,  | Vegetables and Fruit (excluding those tinned or bottled) |
| “ Firewood,    | Paraffin and other oils,                                 |
| “ Tobacco,     | Pickles (excluding those bottled).                       |
| “ Meat,        | Any other articles which will disseminate dust, or, by   |
| “ Soap,        | effluvium, affect milk.                                  |

“ 4. A plentiful supply of boiling water for the sterilisation of vessels used in the sale of milk must be provided.”

Advantage has been taken of Section 2 of the Milk and Dairies (Amendment) Act, 1922, in dealing with retailers whose premises were considered unsuitable. Notices were sent to sixteen milk purveyors inviting them to appear before the Health Committee to show cause why they should not be removed from the Register of Retail Purveyors of Milk.

Of these, four persons made the necessary alterations to their premises on receipt of the notice, and the notice was subsequently withdrawn. Eight appeared before the Committee and were given a specified time to carry out alterations. At the end of this period the premises were satisfactory in five instances, so they were retained on the Register, but in the other three instances they were removed from the Register, as they failed to carry out the instructions of the Committee. Four persons, on appearing before the Committee, failed to show cause why they should not be removed from the Register, and were removed forthwith.



Great difficulty is experienced in keeping the Register up to date owing to the frequency with which these shops change hands, and by the failure of the new occupier, either by neglect or ignorance, to apply for registration.

With the increase in the amount of bottled milk which is now being sold, a number of dairymen are now filling bottles who had not previously done so. In a number of instances the conditions under which the bottles are filled and cleansed is not satisfactory, but it is hoped that these conditions will improve considerably in the near future.

### **Farms within the City.**

There are five cowkeepers within the City. This is one less than last year, a small dairy of six cows having been given up. There are approximately ninety cattle on these farms, so that the quantity of milk produced in the City is very small in comparison with that imported from the surrounding counties.

The cows and premises have been regularly inspected ; no cow was found to be suffering from any of the notifiable forms of tuberculosis, but three cows were found to be affected with Mastitis. The condition and cleanliness of the cattle and premises are satisfactory.

### **Milk Supply to the Institutions.**

Ladywell Sanatorium, Nab Top Sanatorium, and the Municipal Maternity Home are supplied with milk equal in standard to Grade " A " milk from special farms under the direct supervision of the Health Department.



Two farms are required to produce this milk, and in selecting them preference is given to those showing a high standard of cleanliness in relation to the cows, shippens and dairy, and to the general condition of the herd. The selected farms are visited regularly and the cattle and premises inspected. Samples of the milk are taken when it is delivered at the Hospitals and examined bacteriologically in order to ensure the standard being maintained.

### **Milk (Special Designations) Order, 1923.**

The following licences were issued during the year:—

- 11 Dealer's Licences to sell milk as "Certified."
- 1 Supplementary Licence to sell milk as "Certified."
- 10 Dealer's Licences to sell milk as "Pasteurised."
- 2 Supplementary Licences to sell milk as "Pasteurised."

This Order, so far as this City is concerned, is practically a dead letter. The price charged for "Certified" and Grade "A" (Tuberculin Tested) milk is prohibitive for most people, and although approximately 80 per cent of the milk sold in the City is "Pasteurised," it is sold as "milk," and not designated "Pasteurised," so that no licence is required, and therefore there are no conditions to comply with regarding the temperature to which it is heated or the length of time during which it is exposed to heat. This method of pasteurising is undesirable, but cannot be altered by the Order.

### Tuberculous Milk.

Four hundred and sixty-three samples of milk were biologically examined for tubercle bacilli. The number represents :—

453 samples from farm supplies.

9 samples from single cows and groups of cows.

1 sample of "Pasteurised" milk.

Forty-four, or 9·71 per cent, of the samples from farm supplies were found to contain tubercle bacilli, and forty-five, or 9·71 per cent of the total samples examined were positive.

Approximately 90 per cent of the milk consumed in the City is produced in Lancashire and Cheshire. The percentage of milk samples originating from Cheshire and found to contain tubercle bacilli is 10·8 per cent, which is about the average of previous years. The percentage from Lancashire is 9·4 per cent, which is almost double the average for the eight years prior to this. In other years Lancashire always had a much lower percentage of positive milks than Cheshire.

TABLE SHOWING THE PERCENTAGE OF MILK FROM FARM SUPPLIES CONTAINING TUBERCLE BACILLI.

|                                                     | Percentage<br>during<br>the period<br>1921-1924. | Percentage<br>during<br>the period<br>1925-1928. | Percentage<br>in 1929. |
|-----------------------------------------------------|--------------------------------------------------|--------------------------------------------------|------------------------|
| Milk from Cheshire .....                            | 11·6                                             | 10·3                                             | 10·8                   |
| Milk from Lancashire .....                          | 4·36                                             | 4·7                                              | 9·4                    |
| Milk received in the City from<br>all sources ..... | 7·27                                             | 8·0                                              | 9·71                   |



The principal Acts and Orders controlling the milk supply are the Milk and Dairies (Consolidation) Act, 1915, and the relative Orders and the Tuberculosis Order, 1925.

This legislation has been in operation since, approximately, 1925. In the above tables I have, for comparative purposes, divided the periods to show the percentage of tuberculous milk in (a) four years prior to the commencement of the present legislation ; (b) four years during which the legislation has been in operation ; and (c) the year under review.

It will be seen that instead of any improvement, as might have been expected, the position with regard to tubercle bacilli in the milk has gradually become worse.

In the two counties supplying this City there is no regular routine inspection of the herds, and this may account to some extent for the failure of the present legislation to attain its object. Another possible reason is the failure on the part of some farmers to report diseased conditions of the udders in order that they might be examined.

The forty-four farms giving a positive result were visited and the cattle examined. On twenty-four farms one cow was found affected, six farms had two cows affected, and on one farm three cows were found giving tuberculous milk. On thirteen farms no cow was found giving tuberculous milk.



A total of thirty-nine cows were found giving tuberculous milk, and these were dealt with by the respective local authorities under the Tuberculosis Order, 1925.

In the thirteen cases where no cow was found there was a history in most cases of some movement of cattle from the farm during the period between taking the sample and making the visit of examination. In three cases no animal was found affected, and a control sample from all the cows in the herd proved negative, and it was stated that there had been no movement of cattle off the premises since the sample, which was found positive, had been taken.

PARTICULARS OF MILK SAMPLES EXAMINED FOR  
TUBERCULOSIS.

|                                     | No.<br>taken. | Posi-<br>tive. | No. of<br>cows<br>found<br>affected<br>at the<br>time of<br>the exam-<br>ination of<br>the herds. | No. of<br>premises<br>on which<br>affected<br>cows<br>were<br>found. | No. of<br>premises<br>on which<br>no<br>affected<br>animal<br>was<br>found. | No. of<br>premises<br>where two<br>or more<br>cows<br>were<br>affected. |
|-------------------------------------|---------------|----------------|---------------------------------------------------------------------------------------------------|----------------------------------------------------------------------|-----------------------------------------------------------------------------|-------------------------------------------------------------------------|
| Samples from farm<br>supplies ..... | 453           | 44             | 39                                                                                                | 31                                                                   | 13                                                                          | 7                                                                       |
| "Pasteurised" .....                 | 1             | —              | —                                                                                                 | —                                                                    | —                                                                           | —                                                                       |
| Special samples .....               | 9             | 1              | 1                                                                                                 | —                                                                    | —                                                                           | —                                                                       |

TABLE SHOWING NUMBER OF SAMPLES OF MILK OBTAINED FROM VARIOUS COUNTIES, AND THE NUMBER AND PERCENTAGE FOUND TO BE TUBERCULOUS, FOR THE YEARS 1922-1929.

|                      | Year 1922.                        |                  |                      | Year 1923.                        |                  |                      | Year 1924.                        |                  |                      | Year 1925.                        |                  |                      | Year 1926.                        |                  |                      | Year 1927.                        |                  |                      | Year 1928.                        |                  |                      | Year 1929.                        |                  |                      |
|----------------------|-----------------------------------|------------------|----------------------|-----------------------------------|------------------|----------------------|-----------------------------------|------------------|----------------------|-----------------------------------|------------------|----------------------|-----------------------------------|------------------|----------------------|-----------------------------------|------------------|----------------------|-----------------------------------|------------------|----------------------|-----------------------------------|------------------|----------------------|
|                      | Total number of samples examined. | Number positive. | Percentage positive. | Total number of samples examined. | Number positive. | Percentage positive. | Total number of samples examined. | Number positive. | Percentage positive. | Total number of samples examined. | Number positive. | Percentage positive. | Total number of samples examined. | Number positive. | Percentage positive. | Total number of samples examined. | Number positive. | Percentage positive. | Total number of samples examined. | Number positive. | Percentage positive. | Total number of samples examined. | Number positive. | Percentage positive. |
| Cheshire .....       | 89                                | 8                | 9.0                  | 123                               | 17               | 13.8                 | 126                               | 14               | 11.1                 | 203                               | 22               | 10.8                 | 157                               | 14               | 8.9                  | 178                               | 20               | 11.2                 | 220                               | 23               | 10.4                 | 240                               | 26               | 10.8                 |
| Lancashire .....     | 76                                | 1                | 1.3                  | 94                                | 5                | 5.3                  | 76                                | 6                | 8.0                  | 90                                | 4                | 4.4                  | 152                               | 7                | 4.6                  | 124                               | 6                | 4.8                  | 135                               | 7                | 5.1                  | 148                               | 14               | 9.4                  |
| Yorkshire .....      | 12                                | ..               | ..                   | 21                                | 1                | 4.7                  | 14                                | ..               | ..                   | 16                                | 1                | 6.2                  | 17                                | 1                | 6.0                  | 41                                | 4                | 9.7                  | 58                                | 4                | 6.9                  | 48                                | 1                | 2.0                  |
| Staffordshire .....  | 2                                 | ..               | ..                   | 7                                 | ..               | ..                   | 7                                 | 1                | 14.3                 | 2                                 | ..               | ..                   | 1                                 | ..               | ..                   | 8                                 | 1                | 12.5                 | 15                                | 2                | 13.6                 | 8                                 | 2                | 25.0                 |
| Derbyshire .....     | 18                                | 1                | 5.5                  | 31                                | ..               | ..                   | 39                                | 2                | 5.0                  | 14                                | 2                | 14.3                 | ..                                | ..               | ..                   | 9                                 | ..               | ..                   | 15                                | 1                | 6.3                  | 9                                 | 1                | 11.1                 |
| Shropshire .....     | ..                                | ..               | ..                   | ..                                | ..               | ..                   | ..                                | ..               | ..                   | 2                                 | ..               | ..                   | ..                                | ..               | ..                   | ..                                | ..               | ..                   | 2                                 | ..               | ..                   | ..                                | ..               | ..                   |
| Westmorland .....    | ..                                | ..               | ..                   | ..                                | ..               | ..                   | ..                                | ..               | ..                   | ..                                | ..               | ..                   | 1                                 | ..               | ..                   | ..                                | ..               | ..                   | ..                                | ..               | ..                   | ..                                | ..               | ..                   |
| Cumberland .....     | ..                                | ..               | ..                   | ..                                | ..               | ..                   | ..                                | ..               | ..                   | ..                                | ..               | ..                   | ..                                | ..               | ..                   | ..                                | ..               | ..                   | ..                                | ..               | ..                   | ..                                | ..               | ..                   |
| Somerset .....       | ..                                | ..               | ..                   | ..                                | ..               | ..                   | ..                                | ..               | ..                   | ..                                | ..               | ..                   | ..                                | ..               | ..                   | ..                                | ..               | ..                   | ..                                | ..               | ..                   | ..                                | ..               | ..                   |
| Wales .....          | ..                                | ..               | ..                   | 1                                 | 1                | 100.0                | ..                                | ..               | ..                   | 1                                 | ..               | ..                   | ..                                | ..               | ..                   | ..                                | ..               | ..                   | ..                                | ..               | ..                   | ..                                | ..               | ..                   |
| Scotland .....       | ..                                | ..               | ..                   | 1                                 | ..               | ..                   | 2                                 | ..               | ..                   | 1                                 | ..               | ..                   | ..                                | ..               | ..                   | ..                                | ..               | ..                   | ..                                | ..               | ..                   | ..                                | ..               | ..                   |
| Mixed .....          | ..                                | ..               | ..                   | ..                                | ..               | ..                   | ..                                | ..               | ..                   | 2                                 | ..               | ..                   | ..                                | ..               | ..                   | ..                                | ..               | ..                   | 12                                | 2                | 16.6                 | 9                                 | 1                | 11.1                 |
| Pasteurised.....     | ..                                | ..               | ..                   | ..                                | ..               | ..                   | ..                                | ..               | ..                   | ..                                | ..               | ..                   | 11                                | ..               | ..                   | ..                                | ..               | ..                   | 9                                 | ..               | ..                   | 1                                 | 0                | 0                    |
| Total for year ..... | 197                               | 10               | 5.08                 | 278                               | 24               | 8.63                 | 265                               | 23               | 8.7                  | 331                               | 29               | 8.75                 | 329                               | 22               | 6.68                 | 371                               | 31               | 8.3                  | 466                               | 39               | 8.3                  | 463                               | 45               | 9.71                 |

### Inspection of Meat.

TABLE OF MONTHLY SEIZURES OF DISEASED AND UNSOUND FOOD  
DISCOVERED DURING ROUTINE INSPECTION, AND OF UNSOUND  
FOOD SURRENDERED BY THE OWNER THEREOF DURING 1929.

| Month.       | No. of<br>seizures. | Beef<br>lbs. | Mutton<br>lbs. | Pork<br>lbs. | Veal<br>lbs. | Miscel.<br>lbs.             | Total |
|--------------|---------------------|--------------|----------------|--------------|--------------|-----------------------------|-------|
| January ...  | 101                 | 2416         | 490            | 1946         | —            | —                           | 4852  |
| February ..  | 112                 | 1712         | 992            | 2413         | —            | —                           | 5117  |
| March .....  | 102                 | 770          | 1131           | 1404         | —            | —                           | 3305  |
| April .....  | 127                 | 1964         | 360            | 1841         | —            | —                           | 4165  |
| May .....    | 68                  | 1774         | —              | 2744         | —            | —                           | 4518  |
| June .....   | 59                  | 1625         | —              | 1884         |              | 6 LUNCH<br>TONGUE           | 3515  |
| July .....   | 108                 | 1552         | 175            | 5170         | 90           | —                           | 6987  |
| August ....  | 102                 | 1370         | 153            | 3990         | —            | 10 FISH                     | 5523  |
| September .  | 136                 | 2037         | 310            | 4614         | —            | 5THREE<br>RABBITS           | 7066  |
|              |                     |              |                |              |              | 100 DESICCATED<br>COCOANUTS |       |
| October .... | 93                  | 3707         | 280            | 1844         | —            | —                           | 5831  |
| November ..  | 80                  | 2216         | 210            | 1039         | —            | —                           | 3465  |
| December ..  | 120                 | 1298         | 88             | 1888         | —            | —                           | 3274  |
|              | 1208                | 22441        | 4189           | 30777        | 90           | 121                         | 57618 |

### Unsound Food.

All unsound meat is destroyed under the supervision of an Inspector. A small quantity is destroyed on the premises, but, if the quantity is large, it is taken to the Corporation Destructor.

|                     | tons. | cwts. | qrs. | lbs. |
|---------------------|-------|-------|------|------|
| Pork .....          | 13    | 14    | 3    | 5    |
| Beef .....          | 10    | 0     | 1    | 13   |
| Mutton .....        | 1     | 17    | 1    | 17   |
| Veal .....          | —     | —     | 3    | 6    |
| Fish .....          | —     | —     | —    | 10   |
| Cocoanut .....      | —     | —     | 3    | 16   |
| Miscellaneous ..... | —     | —     | —    | 11   |
|                     | 25    | 14    | 1    | 22   |



TABLE SHOWING THE AMOUNT OF FOOD CONDEMNED FROM  
VARIOUS CAUSES DURING 1929.

| No. of seizures.  | Cause of seizure.              | Weight in lbs.     |
|-------------------|--------------------------------|--------------------|
| 723               | Tuberculosis .....             | 29,879             |
| 119               | Injury .....                   | 5,461              |
| 88                | Parasitic .....                | 669                |
| 56                | Cirrhosis .....                | 516                |
| 43                | Congestion .....               | 704                |
| 32                | Decomposition .....            | 2,472              |
| 25                | Congestion and Pneumonia ..... | 1,666              |
| 24                | Abscess .....                  | 494                |
| 22                | Swine Fever .....              | 3,600              |
| 17                | Septicæmia .....               | 4,570              |
| 13                | Jaundice .....                 | 1,954              |
| 10                | Emaciation .....               | 1,868              |
| 8                 | Dropsy .....                   | 1,700              |
| 6                 | Pleurisy .....                 | 170                |
| 5                 | Peritonitis .....              | 840                |
| 5                 | Cavernous Angeoma .....        | 80                 |
| 4                 | Maggot .....                   | 95                 |
| 3                 | Rickets .....                  | 110                |
| 1                 | Red Water .....                | 460                |
| 1                 | Fevered .....                  | 480                |
| 1                 | Mould .....                    | 14                 |
| 1                 | Bacterial Necrosis .....       | 10                 |
| 1                 | Pericarditis.....              | 6                  |
| <hr/> 1,208 <hr/> |                                | <hr/> 57,618 <hr/> |

Of the total weight of meat seized, 13 tons 6 cwt. 3qrs. 3lbs., or 51.85 per cent, was seized on account of tuberculosis.

TABLE SHOWING THE NUMBER OF PIGS INSPECTED, THE NUMBER FOUND TO BE AFFECTED WITH TUBERCULOSIS, AND THE PERCENTAGE SO AFFECTED DURING THE YEARS 1920-1929.

| Year.      | Number Inspected. | Diseased. | Percentage. Diseased |
|------------|-------------------|-----------|----------------------|
| 1920.....  | 6,925             | 260       | 3·75                 |
| 1921.....  | 11,111            | 512       | 4·6                  |
| 1922.....  | 14,809            | 824       | 5·5                  |
| 1923.....  | 13,015            | 606       | 4·6                  |
| 1924.....  | 18,742            | 931       | 4·9                  |
| 1925.....  | 15,684            | 697       | 4·4                  |
| 1926.....  | 13,672            | 424       | 3·1                  |
| 1927.....  | 12,702            | 512       | 4·03                 |
| 1928.....  | 16,992            | 757       | 4·4                  |
| 1929 ..... | 14,110            | 606       | 4·22                 |

Slaughterhouses.

The number of slaughterhouses is the same as last year, namely, six private and one public. One of the booths of the Corporation Slaughterhouse is occupied by a horse slaughterer.

They have all been visited whenever slaughtering has taken place.

NUMBER OF CARCASSES INSPECTED AND DISEASED.

|                         |              | No. Inspected. | No. Diseased. |
|-------------------------|--------------|----------------|---------------|
| Private Slaughterhouses | Cattle ..... | 1,673          | 47            |
|                         | Sheep .....  | 8,409          | 4             |
|                         | Calves ..... | 54             | 1             |
|                         | Pigs .....   | 1,4082         | 856           |
| Public Slaughterhouses  | Cattle ..... | 817            | 36            |
|                         | Sheep .....  | 1,725          | 96            |
|                         | Calves ..... | 19             | —             |
|                         | Pigs .....   | 28             | —             |
|                         | Horses       | 239            | —             |
|                         |              | 27,046         | 1040          |

### Offensive Trades.

The following is a list of offensive trades registered in the City. There has been no complaints of any nuisance arising from these trades.

#### Nature of Trades.

|                      |    |
|----------------------|----|
| Tripe Dressing ..... | 4  |
| Soap Works .....     | 3  |
| Tanneries.....       | 1  |
| Skin Dressers .....  | 1  |
| Gut Scrapers .....   | 3  |
| —                    |    |
| Total .....          | 12 |

### Retail Meat Shops and Food Preparing Premises.

These premises have been regularly inspected and have been generally found to be conducted in a satisfactory manner. Special attention has been paid to premises where meat products are made.



## SECTION VI.

## Bacteriological Laboratory Report.

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I have pleasure in submitting the following report on the work carried out in the City Laboratories during the year 1929.

There were no outbreaks of food poisoning or infectious disease requiring special bacteriological investigation.

The appended table gives an outline of the examinations carried out for each department during 1929.

The work still continues to show a steady increase, the total number of specimens examined being almost 16,000, an increase of over 2,500 on that of last year.

As in previous years, all throat swabs sent in for diphtheria from outside were examined by direct smear and also examined by special stain for Vincent's Angina, in addition to the usual cultural method. Approximately 1,500 swabs were examined in this way, 130 of these being positive for diphtheria on culture, and in 63 out of this 130 the organism was discovered in direct smear, thus amply justifying the extra time and trouble involved. Only 5 cases of Vincent's Angina were discovered in the entire examination of 1,500 swabs sent in for diphtheria. This shows an unusually low incidence of the disease.

Eighteen virulence tests were performed on diphtheria organisms isolated from cases at Ladywell Sanatorium, which continued positive on culture during convalescence. With the exception of one doubtful case, all these organisms proved virulent.

A new and improved method has been introduced for the performance of the Widal reaction used in the diagnosis of enteric infection. The new method is considerably more elaborate and time-consuming, but justifies its use, as one is often enabled to make a diagnosis earlier in the course of the disease, and, moreover, those cases which are consistently negative when tested by the old method are much more liable to be positive when examined by the new method.

During the past year a series of examinations of the public swimming bath water in the City was made, and a questionnaire was sent round to a number of other cities, in order to compare their results with our own. Although the results of our examinations were only moderately satisfactory, it was found that they compared favourably with those of most of the other towns.

In accordance with the Ministry of Health's pamphlet on swimming bath water, a scheme was drawn up suggesting the regular addition of disinfectants and coagulants to the water.

The work done by Dr. Crawford at Hope Hospital Laboratory continues to grow rapidly, and shows an increase of nearly 50 per cent over last year. As many

of the examinations performed there require long and detailed work, especially chemical pathology, cytological blood examinations, etc., this means a considerable extra demand on the time of the staff employed.

In conclusion, I wish to thank the staff for their whole-hearted assistance and co-operation in carrying on the work.



PARTICULARS OF INVESTIGATIONS CARRIED OUT IN THE BACTERIOLOGICAL LABORATORY  
DURING THE YEAR 1929

BACTERIOLOGICAL LABORATORY REPORT.

| NATURE OF INVESTIGATION.                                                                 | Ladywell<br>Sanatorium. | Hope Hospital. | Veterinary<br>Department. | Tuberculosis<br>Department. | Veneral<br>Diseases<br>Department. | School Medical<br>Department. | Maternity and<br>Child Welfare<br>Department. | General<br>Practitioners. | Salford Royal<br>Hospital. | TOTAL. |
|------------------------------------------------------------------------------------------|-------------------------|----------------|---------------------------|-----------------------------|------------------------------------|-------------------------------|-----------------------------------------------|---------------------------|----------------------------|--------|
| Swabs for Diphtheria .....                                                               | 6639                    | 96             | ..                        | ..                          | ..                                 | 267                           | 43                                            | 1465                      | ..                         | 8510   |
| Virulence test of organisms .....                                                        | 18                      | ..             | ..                        | ..                          | ..                                 | ..                            | ..                                            | ..                        | ..                         | 18     |
| Preparation of Autogenous Vaccines .....                                                 | 14                      | 11             | ..                        | ..                          | ..                                 | ..                            | ..                                            | 2                         | ..                         | 27     |
| Examination of Sputa for Tuberculosis .....                                              | 669                     | 491            | ..                        | 841                         | ..                                 | ..                            | ..                                            | 758                       | ..                         | 2759   |
| Biological tests of milk for Tuberculosis .....                                          | ..                      | 10             | 472                       | ..                          | ..                                 | ..                            | ..                                            | ..                        | ..                         | 482    |
| Bacteriological examinations of milk .....                                               | ..                      | 10             | 89                        | ..                          | ..                                 | ..                            | ..                                            | ..                        | ..                         | 99     |
| Widal Reactions .....                                                                    | 14                      | 20             | ..                        | ..                          | ..                                 | 1                             | ..                                            | 11                        | ..                         | 46     |
| Examinations of Swimming Bath Water .....                                                | 31                      | ..             | ..                        | ..                          | ..                                 | ..                            | ..                                            | ..                        | ..                         | 31     |
| Disinfection Experiments carried out on Swimming Bath Water.                             | 4                       | ..             | ..                        | ..                          | ..                                 | ..                            | ..                                            | ..                        | ..                         | 4      |
| Bacteriological and cytological examination of Urine .....                               | 17                      | 185            | ..                        | 6                           | 3                                  | ..                            | 8                                             | 5                         | ..                         | 224    |
| Bacteriological examination of faeces .....                                              | 13                      | 11             | ..                        | ..                          | ..                                 | 1                             | ..                                            | 5                         | ..                         | 30     |
| Examination of Hairs and Scales for Ringworm .....                                       | ..                      | 2              | ..                        | ..                          | ..                                 | 29                            | ..                                            | ..                        | ..                         | 31     |
| Examination of blood for Anthrax .....                                                   | ..                      | ..             | 15                        | ..                          | ..                                 | ..                            | ..                                            | ..                        | ..                         | 15     |
| Wassermann Reaction .....                                                                | 3                       | 274            | ..                        | 1                           | 1813                               | ..                            | 8                                             | 273                       | 478                        | 2850   |
| Blood Cultures .....                                                                     | 10                      | 4              | ..                        | 1                           | ..                                 | ..                            | 52                                            | ..                        | ..                         | 14     |
| Examinations for Gonococci .....                                                         | 2                       | 1              | ..                        | 2                           | ..                                 | ..                            | ..                                            | 50                        | ..                         | 106    |
| Inoculations for Diagnosis .....                                                         | ..                      | 23             | ..                        | ..                          | 2                                  | ..                            | ..                                            | ..                        | 2                          | 29     |
| Blood film Examinations with Haemoglobin Estimation and<br>differential cell Count ..... | ..                      | 71             | ..                        | ..                          | ..                                 | ..                            | ..                                            | ..                        | ..                         | 71     |
| Complete Blood Count .....                                                               | ..                      | 13             | ..                        | ..                          | ..                                 | ..                            | ..                                            | ..                        | ..                         | 13     |
| Autopsies .....                                                                          | 6                       | 25             | ..                        | ..                          | ..                                 | ..                            | ..                                            | ..                        | ..                         | 31     |
| Examinations of Cerebro-Spinal Fluid .....                                               | 13                      | 51             | ..                        | ..                          | 8                                  | ..                            | 2                                             | ..                        | ..                         | 64     |
| Histological Sections .....                                                              | ..                      | 181            | ..                        | ..                          | ..                                 | ..                            | ..                                            | ..                        | ..                         | 191    |
| Chemical examination of test meals of stomach contents .....                             | ..                      | 44             | ..                        | ..                          | ..                                 | ..                            | ..                                            | ..                        | ..                         | 44     |
| Films and cultures of Pus, Pleural Fluids, Exudates, &c. ....                            | ..                      | 240            | ..                        | ..                          | ..                                 | ..                            | ..                                            | ..                        | ..                         | 240    |
| Urea concentration tests .....                                                           | ..                      | 2              | ..                        | ..                          | ..                                 | ..                            | ..                                            | ..                        | ..                         | 2      |
| Blood Urea Estimation .....                                                              | ..                      | 3              | ..                        | ..                          | ..                                 | ..                            | ..                                            | ..                        | ..                         | 3      |
| Blood sugar estimation .....                                                             | 1                       | ..             | ..                        | ..                          | ..                                 | ..                            | ..                                            | ..                        | ..                         | 9      |
| Various .....                                                                            | 3                       | 3              | 8                         | ..                          | ..                                 | ..                            | ..                                            | 5                         | 2                          | 21     |
| Totals .....                                                                             | 7457                    | 1779           | 584                       | 851                         | 1826                               | 298                           | 113                                           | 2574                      | 482                        | 15964  |

## SECTION VII.

## Report relating to the City Analyst's Department.

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During the year 1929, 3,182 samples were examined, of which 1491 were taken under the Food and Drugs (Adulteration) Act. Of these, 46 or 3·02 per cent were returned as adulterated. The remaining 1,691 samples were received from various departments of the Corporation or were examined in connection with investigations carried out during the year.

TABLE 1.

| SAMPLES.                    | Number Examined. | Number Adulterated. |             | Percentage of Adulteration. |
|-----------------------------|------------------|---------------------|-------------|-----------------------------|
|                             |                  | Preservatives Only. | Other ways. |                             |
| Milk .....                  | 1100             | —                   | 28          | 2·54                        |
| Condensed Milk .....        | 10               | —                   | 1           | 10·0                        |
| Butter .....                | 23               | —                   | —           | —                           |
| Cheshire Cheese .....       | 7                | —                   | 1           | 14·2                        |
| Cheese (other varieties) .. | 30               | —                   | 2           | 6·6                         |
| Margarine .....             | 11               | —                   | —           | —                           |
| Lard .....                  | 11               | —                   | —           | —                           |
| Beef Suet .....             | 1                | —                   | —           | —                           |
| Plain Flour .....           | 8                | —                   | —           | —                           |
| Self-raising Flour .....    | 8                | —                   | —           | —                           |
| Cocoanut Flour .....        | 1                | —                   | —           | —                           |
| Gluten Flour .....          | 1                | —                   | —           | —                           |
| Diabetic Flour .....        | 3                | —                   | 2           | 66·6                        |
| Cornflour .....             | 1                | —                   | —           | —                           |
| Arrowroot .....             | 4                | —                   | —           | —                           |
| Rice .....                  | 9                | —                   | —           | —                           |
| Barley .....                | 9                | —                   | —           | —                           |
| Baking Powder .....         | 3                | —                   | —           | —                           |
| Custard Powder .....        | 9                | —                   | —           | —                           |
| Tea .....                   | 17               | —                   | —           | —                           |
| Coffee .....                | 17               | —                   | —           | —                           |
| Coffee and Chicory .....    | 4                | —                   | —           | —                           |
| Chicory .....               | 2                | —                   | —           | —                           |
| Cocoa .....                 | 13               | —                   | —           | —                           |
| Sugar .....                 | 4                | —                   | —           | —                           |
| Pepper .....                | 10               | —                   | —           | —                           |
| Compound Pepper .....       | 1                | —                   | —           | —                           |
| Mustard .....               | 5                | —                   | —           | —                           |
| Toffee .....                | 11               | —                   | —           | —                           |
| Jelly .....                 | 5                | —                   | —           | —                           |
| Honey .....                 | 9                | —                   | —           | —                           |
| Lemon Cheese .....          | 2                | —                   | 2           | 100·0                       |
| Mincemeat .....             | 3                | —                   | —           | —                           |
| Jam .....                   | 2                | 2                   | —           | 100·0                       |
| Ground Ginger .....         | 7                | —                   | —           | —                           |
| Dried Apricots .....        | 4                | —                   | —           | —                           |
| Sultanas .....              | 4                | —                   | —           | —                           |
| Epsom Salts .....           | 12               | —                   | —           | —                           |
| Glauber's Salt .....        | 4                | —                   | —           | —                           |
| Rochelle Salts .....        | 4                | —                   | —           | —                           |
| Seidlitz Powder .....       | 8                | —                   | 1           | 12·5                        |
| Borax .....                 | 9                | —                   | —           | —                           |
| Boracic Acid .....          | 2                | —                   | —           | —                           |
| Boracic Ointment .....      | 3                | —                   | —           | —                           |



TABLE 1—(Continued).

| SAMPLES.                             | Number Examined. | Number Adulterated. |             | Percentage of Adulteration. |
|--------------------------------------|------------------|---------------------|-------------|-----------------------------|
|                                      |                  | Preservatives Only. | Other ways. |                             |
| Zinc Ointment .....                  | 11               | —                   | 2           | 18.2                        |
| White Precipitate Ointment .....     | 2                | —                   | —           | —                           |
| Tincture of Iodine (Strong)          | 4                | —                   | —           | —                           |
| Tincture of Iodine (Weak)            | 1                | —                   | —           | —                           |
| Paregoric .....                      | 5                | —                   | —           | —                           |
| Proprietary Medicines ..             | 1                | —                   | —           | —                           |
| Cod Liver Oil and Malt Extract ..... | 9                | —                   | 2           | 22.2                        |
| Olive Oil .....                      | 11               | —                   | —           | —                           |
| Turpentine .....                     | 9                | —                   | 1           | 11.1                        |
| Whisky .....                         | 7                | —                   | 2           | 28.5                        |
| Rum .....                            | 6                | —                   | —           | —                           |
| Beer .....                           | 7                | —                   | —           | —                           |
| Eggs .....                           | 3                | —                   | —           | —                           |
| Vinegar .....                        | 4                | —                   | —           | —                           |
|                                      | 1491             | 2                   | 44          | 3.08                        |

The total number of samples is greater than for any previous year with the exception of 1924, and represents a purchase of 596 samples per 100,000 of the population, which is a greater number than that taken by most other local authorities. Of the total samples, 46, or 3.02 per cent, were returned as adulterated. Comparative figures for adulteration in previous years are given in Table 2.

TABLE 2.  
COMPARATIVE PERCENTAGE OF ADULTERATION.

|                                         | 1920  | 1921  | 1922  | 1923  | 1924  | 1925  | 1926  | 1927  | 1928  | 1929  |
|-----------------------------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| Percentage of Adulteration              | 6.3   | 8.7   | 5.6   | 6.9   | 4.3   | 7.7   | 4.5   | 4.3   | 4.7   | 3.0   |
| Total Samples .                         | 1,410 | 1,364 | 1,452 | 1,388 | 1,544 | 1,396 | 1,387 | 1,452 | 1,484 | 1,491 |
| Formal Samples                          | 807   | 623   | 653   | 644   | 775   | 752   | 765   | 744   | 733   | 727   |
| Informal „                              | 603   | 741   | 799   | 744   | 769   | 644   | 622   | 738   | 751   | 764   |
| No. of Samples per 100,000 persons .... | 599   | 570   | 607   | 577   | 641   | 572   | 563   | 593   | 593   | 596   |

It will be noticed that in the previous table, the samples are divided into two parts, named respectively "Formal" and "Informal" samples. "Formal" samples are those taken in accordance with Section 18 (1) of the Food and Drugs (Adulteration) Act 1928. This Section enacts that "The person purchasing a sample of any article with the intention of submitting it to analysis shall, after the purchase has been completed, forthwith notify to the seller or his agent who sold the sample his intention to have it analysed by the Public Analyst, and shall then and there divide the sample into three parts, each part to be marked and sealed or fastened up in such a manner as its nature will permit, and shall—

- (a) if required to do so, deliver one part to the seller or his agent ;
- (b) retain one part for future comparison ;
- (c) if he thinks fit to have an analysis made, submit one part to the analyst.

In the case of "Informal" samples the formalities of the Act are not complied with, and usually the vendor is not aware that the sample has been bought for the purpose of analysis. Informal samples serve a very useful purpose, since they enable the Inspector to find out at what shops adulteration is being practised without causing annoyance to honest shopkeepers, whose chief objection to the taking of samples is that the Inspector takes up their time and counter space for the division of samples, and that his (the Inspector's) action excites the curiosity of the customers and may arouse their suspicions.



The buying of an informal sample is a very simple matter, requiring much less time and trouble than the taking of a formal sample. No legal action under the Food and Drugs Act can take place with respect to an informal sample, but if the latter, upon examination, proves to be adulterated, a formal sample may, if necessary, be taken, and proceedings may then be instituted, which are generally taken under Section 2 of the Act. This makes it an offence to "sell to the prejudice of the purchaser any article of food or any drug which is not of the nature, or not of the substance, or not of the quality demanded." So far as chemical examination goes, informal samples are treated in exactly the same way as formal ones. The same care is necessarily bestowed on the analysis, since adulteration is generally detected by this means (except in the case of milk), and in cases where some particularly ingenious adulteration has been practised, practically all the work is done on the informal sample, thus making the analysis of the subsequent formal sample a comparatively simple matter. Prosecutions for adulteration in Salford are the exception rather than the rule. It has been found that cases which involve, say, an incorrect description of the article sold can be very much better dealt with by inviting the makers to an informal conference on the matter, and putting each other's cases clearly forward. The majority of manufacturers are willing to make the alterations in their labels, which, in the interests of the public, are thought to be necessary by the Department. Of course, if no agreement can be arrived at in this way, the assistance of the Courts can always be invoked.



It is equally obvious that there are cases of gross adulteration which admit of no excuse, and these are dealt with by prosecutions under the Act.

The Food and Drugs (Adulteration) Act, 1928, came into force on the first of January, 1929, that is, on the first day of the period under review. This Act repeals the old Food and Drugs Acts of 1875 to 1927 as well as the Margarine Act of 1887 and the Butter and Margarine Act of 1907. It is, however, a "consolidating Act," and simply re-enacts the provisions of these Acts almost without the alteration of a comma. Little has been gained by this consolidation, and it is the opinion of the writer that a new Act to modernise our code dealing with Food and Drugs was wanted rather than a re-enactment of our old and somewhat inadequate laws. New aspects with which new legislation will eventually have to be made to deal, are mis-statements and inaccurate claims by means of label and advertisement. Minimum standards of quality need to be set up for certain classes of foods, notably jam and cheese, and when these are established it would be a simple matter to take power to make regulations embodying standards for other articles, as and when required. Opposed as certain sections of the opinion in this country appear to be to the notion of "standards," it is worthy of remark that most of our colonies and progressive foreign countries have adopted minimum requirements of quality in the case of many articles for which no standards exist in this country.

The year 1929 also saw the promulgation of a number of Statutory Rules and Orders made under the Agricul-

tural Produce (Grading and Marking) Act of 1928. Some of these embody chemical standards for the articles or grades designated therein, and there is no doubt that the analyst will be called upon to decide whether a given article actually does conform to the description given it, though the writer is not aware of any cases that have arisen up to the present. The articles for which analytical standards have so far been established are “all-English” flours (plain, self-raising and yeoman) and the various “all-English” malt flours and malt extracts.

Milk.

One thousand one hundred samples of milk have been examined during the year of which 28, or 2·5 per cent, have been returned as adulterated. This figure represents an improvement over last year and compares favourably with the low percentage of adulteration for the years 1926 and 1927. The average figures for the year for fat and solids not fat show a remarkable agreement with those for the average of the last fifteen years, given in Table 7.

The samples include 36 taken at Ladywell Sanatorium 11 at the Maternity Home, 57 at Hope Hospital, and 5 at Nab Top Sanatorium. The average quality of these samples was :—

|                           | Total<br>Solids,<br>per cent. | Fat<br>per<br>cent. | Solids-<br>not-fat,<br>per cent. |
|---------------------------|-------------------------------|---------------------|----------------------------------|
| Ladywell Sanatorium ..... | 12·71                         | 3·83                | 8·88                             |
| Maternity Home .....      | 12·68                         | 3·80                | 8·88                             |
| Hope Hospital .....       | 12·29                         | 3·43                | 8·86                             |
| Nab Top Sanatorium .....  | 12·76                         | 3·94                | 8·82                             |



**TABLE 3.**  
ADULTERATION OF MILK.

|                             | 1918 | 1919 | 1920 | 1921 | 1922 | 1923 | 1924 | 1925 | 1926 | 1927 | 1928 | 1929 |
|-----------------------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Number of Samples.          | 865  | 829  | 981  | 899  | 923  | 779  | 833  | 921  | 994  | 1028 | 1103 | 1100 |
| Percentage of Adulteration. | 3.1  | 7.1  | 7.2  | 8.9  | 5.3  | 5.4  | 2.6  | 4.7  | 2.5  | 2.1  | 3.9  | 2.5  |

**TABLE 4.**  
AVERAGE COMPOSITION OF ALL MILK SAMPLES, 1929.

| Month.             | Number of Samples. | Total Solids per cent. | Fat per cent. | Solids-not-fat per cent. |
|--------------------|--------------------|------------------------|---------------|--------------------------|
| January .....      | 100                | 12.24                  | 3.57          | 8.67                     |
| February .....     | 92                 |                        |               |                          |
| March .....        | 100                |                        |               |                          |
| April .....        | 108                | 12.50                  | 3.65          | 8.85                     |
| May .....          | 80                 |                        |               |                          |
| June .....         | 113                |                        |               |                          |
| July .....         | 60                 | 12.40                  | 3.57          | 8.83                     |
| August .....       | 91                 |                        |               |                          |
| September .....    | 93                 |                        |               |                          |
| October .....      | 109                | 12.78                  | 3.80          | 8.98                     |
| November .....     | 96                 |                        |               |                          |
| December .....     | 58                 |                        |               |                          |
| <b>TOTAL .....</b> | <b>1100</b>        | <b>12.47</b>           | <b>3.64</b>   | <b>8.83</b>              |



TABLE 5.

AVERAGE COMPOSITION OF STATION MILK SAMPLES, 1929.

| Month.          | Number of Samples. | Total Solids per cent. | Fat per cent. | Solids-not-fat per cent. |
|-----------------|--------------------|------------------------|---------------|--------------------------|
| January .....   | 12                 | 12.04                  | 3.55          | 8.49                     |
| February .....  | 12                 |                        |               |                          |
| March .....     | 32                 |                        |               |                          |
| April .....     | 29                 | 12.54                  | 3.67          | 8.87                     |
| May .....       | 24                 |                        |               |                          |
| June .....      | 35                 |                        |               |                          |
| July .....      | 24                 | 12.29                  | 3.52          | 8.77                     |
| August .....    | 39                 |                        |               |                          |
| September ..... | 33                 |                        |               |                          |
| October .....   | 28                 | 12.89                  | 3.87          | 9.02                     |
| November .....  | 34                 |                        |               |                          |
| December .....  | 23                 |                        |               |                          |
| TOTAL .....     | 325                | 12.47                  | 3.66          | 8.81                     |

TABLE 6.

AVERAGE COMPOSITION OF MILK SAMPLES OTHER THAN STATION MILK, 1929.

| Month.          | Number of Samples. | Total Solids per cent. | Fat per cent. | Solids-not-fat per cent. |
|-----------------|--------------------|------------------------|---------------|--------------------------|
| January .....   | 88                 | 12.28                  | 3.56          | 8.72                     |
| February .....  | 80                 |                        |               |                          |
| March .....     | 68                 |                        |               |                          |
| April .....     | 79                 | 12.43                  | 3.64          | 8.84                     |
| May .....       | 56                 |                        |               |                          |
| June .....      | 78                 |                        |               |                          |
| July .....      | 36                 | 12.48                  | 3.61          | 8.87                     |
| August .....    | 52                 |                        |               |                          |
| September ..... | 60                 |                        |               |                          |
| October .....   | 81                 | 12.73                  | 3.77          | 8.96                     |
| November .....  | 62                 |                        |               |                          |
| December .....  | 35                 |                        |               |                          |
| TOTAL .....     | 775                | 12.48                  | 3.64          | 8.84                     |

Table 7 gives comparative figures from the reports of other Public Analysts and shows the average quality of the milk samples in Salford for the period 1915 to 1929.

**TABLE 7.**

| Place.                         | Number<br>of<br>Samples. | Total<br>Solids<br>per cent. | Fat<br>per<br>cent. | Solids-<br>not-fat<br>per cent. |
|--------------------------------|--------------------------|------------------------------|---------------------|---------------------------------|
| Salford .....1929              | 1100                     | 12.47                        | 3.64                | 8.83                            |
| Birmingham .....1929           | 2513                     | 12.31                        | 3.53                | 8.78                            |
| Lancashire .....1929           | 2843                     | 12.61                        | 3.71                | 8.90                            |
| Kent .....1929                 | 1676                     | 12.54                        | 3.66                | 8.88                            |
| Kingston-upon-Hull 1929        | 605                      | 12.39                        | 3.60                | 8.79                            |
| Average, Salford,<br>1915-1929 | 12649                    | 12.46                        | 3.64                | 8.82                            |

In considering these average figures, as well as those in Tables 3, 4, 5 and 6, it should be remembered that all samples, both genuine and adulterated, are included. Where a supply is under suspicion it may be necessary to take a number of samples, and the general effect of this is to make the published figures for percentage adulteration (Table 3) higher, and the average figures for quality (Tables 4, 5, 6 and 7) slightly lower than the probable true figures for the milk supply of Salford as a whole.

It may be remarked in this connection that no prosecution is instituted except after the most rigorous inquiry, and that a summons issued in respect of one sample has usually necessitated the taking of a dozen or more samples. These are required to eliminate innocent persons who may have handled the milk at the various stages in its journey from the cow to the



consumer, and to rule out the possibility of the deficiency being due to natural causes. Nearly every case of a suspected supply involves your Inspector in a journey to the farm, where the cows are milked in his presence, the quality of the so-called "Appeal to the cow" sample, taken under conditions which are as nearly as possible identical, being compared with that of the doubtful sample procured in the first instance.

Table 8 contains a list of the samples of milk found to be adulterated, together with the action taken in regard to each sample.

TABLE 8.

| No. of Sample. | Nature of Adulteration.         | Action taken.                                  | Remarks.                                                                               |
|----------------|---------------------------------|------------------------------------------------|----------------------------------------------------------------------------------------|
| 670            | Deficient 10.6% solids-not-fat. | Cautioned by the Medical Officer of Health.    | The Milk was genuine but of poor quality. The supply is no longer coming into Salford. |
| 671            | Deficient 8.2% solids-not-fat.  |                                                |                                                                                        |
| 672            | Deficient 7.1% do. (& 5% fat).  |                                                |                                                                                        |
| 673            | Deficient 10.6% solids-not-fat. |                                                |                                                                                        |
| 675            | Deficient 3.5% solids-not-fat.  |                                                |                                                                                        |
| 677            | Deficient 6.7% solids-not-fat.  |                                                |                                                                                        |
| 678            | Deficient 11.8% do. (& 5% fat). |                                                |                                                                                        |
| 679            | Deficient 5.9% solids-not-fat.  |                                                |                                                                                        |
| 680            | Deficient 7.1% solids-not-fat.  |                                                |                                                                                        |
| 681            | Deficient 7.1% solids-not-fat.  |                                                |                                                                                        |
| 682            | Deficient 5.9% solids-not-fat.  |                                                |                                                                                        |
| 684            | Deficient 5.9% do. (& 6.7% fat) |                                                |                                                                                        |
| 685            | Deficient 4.7% solids-not-fat.  |                                                |                                                                                        |
| 686            | Deficient 5.9% solids-not-fat.  |                                                |                                                                                        |
| 688            | Deficient 5.9% solids-not-fat.  | None.                                          | Further samples genuine.                                                               |
| 716            | Deficient 3.5% solids-not-fat.  |                                                |                                                                                        |
| 718            | Deficient 3.5% solids-not-fat.  |                                                |                                                                                        |
| 735            | Deficient 16.7% fat.            |                                                |                                                                                        |
| 931            | Deficient 20.0% fat.            | Cautioned.                                     | Deficiency accidental. Shopkeeper.                                                     |
| 1120           | Deficient 2.6% solids-not-fat.  | Referred to Medical Officer.                   | Maternity Home.                                                                        |
| 1283           | Deficient 10.0% fat.            | Farmer cautioned by Medical Officer of Health. | Further samples genuine.                                                               |
| 1284           | Deficient 13.0% fat.            |                                                |                                                                                        |
| 1311           | Deficient 6.0% fat.             |                                                |                                                                                        |
| 1322           | Deficient 6.0% fat.             |                                                |                                                                                        |
| 1374           | Deficient 34.0% solids-not-fat. | Fined £10 in each case; £20 in all.            | Farmer.                                                                                |
| 1375           | Deficient 31.0% solids-not-fat. |                                                |                                                                                        |
| 1680           | Deficient 3.3% fat.             | Cautioned.                                     | Wholesaler. Further samples genuine.                                                   |
| 1718           | Deficient 6.7% fat.             | Cautioned.                                     | Further samples genuine.                                                               |



Samples Nos. 670-673, 675, 677-682, 684-686, 688.

The first four samples were informal, and were taken at the depot of the wholesale dealer. The following day formal samples Nos. 675 to 679 were taken, and these were very similar in quality to the informal samples. The farm was visited on the next day and samples taken of the morning milking and from the churn containing the previous evening's milk. With one exception, these samples were all below the limit for solids not fat (8·5 per cent). According to the farmer, the feed consisted largely of brewer's grains—not an ideal diet for cows. The next day further samples of the milk were taken at the depot, and these again were below the limit for solids. It would appear that the milk was genuine but of poor quality, on account of bad feeding or other causes. A letter of caution was sent to the farmer by the Medical Officer of Health, and a reply stated that no reason could be assigned for the poor quality. The wholesale dealer stopped this particular supply, so that it ceased coming into Salford, and no further action was taken.

Samples Nos. 716, 718.

These were two farmer's samples and showed a slight deficiency in solids not fat. Further samples proved genuine, and no action was taken.

Sample No. 735 was from one of the fourteen churns supplied to Hope Hospital. The remaining thirteen samples were all of very good quality, and the deficiency was probably accidental.

Sample No. 931.—In this case your Inspector was about to leave a shop under the impression that no loose milk was sold, when the shopkeeper, who was quite aware who the Inspector was, offered to sell him some which, she said, she kept in the back premises. The offer was accepted, and the sample turned out to be deficient of 20 per cent of fat. As, obviously, no deliberate fraud was intended, although carelessness may have occurred, no legal action was taken, but a cautionary letter was sent by the Medical Officer of Health.

Sample No. 1120. This was taken at the Maternity Home and was slightly deficient of solids not fat. A cautionary letter was sent by the Medical Officer of Health.

Samples Nos. 1283, 1284, 1311 and 1322.—These were all the milk of one farmer. Nos. 1283 and 1284 were obtained from shopkeepers and Nos. 1311 and 1322 on delivery. Samples Nos. 1290, 1292 and 1321, taken concurrently, of the same farmer's milk, were genuine. The farmer was cautioned by the Medical Officer of Health, and a further sample was of good quality.

Samples Nos. 1374 and 1375.—These samples were the worst obtained for some time. They contained 34 and 31 per cent of extraneous water respectively. The farmer pleaded guilty, admitting the presence of the water in the samples. His defence was that it had been added by a milkmaid who was at times not responsible for her actions. He was fined £10 in each case ; £20 in all.



Sample No. 1680 was a bottle of sterilised milk taken from a retailer. Follow-up samples were genuine, and the wholesaler, who bottled the milk, was cautioned.

Sample No. 1718 was a sample of a farmer's milk. Two other samples from the same source and taken at the same time were genuine. The supply was kept under observation for some time, and further samples were satisfactory.

### **Condensed Milk.**

Of the ten samples of condensed milk submitted by your Inspector, nine were in accordance with the Condensed Milk Regulations, both as to composition and the labelling of the tin. The label on the remaining sample, No. 950, contained instructions for the dilution of the milk which were not in accordance with Section 6*b* (ii) of the first schedule of the Regulations. By following the instructions in this case the fluid produced by dilution would have contained less than 12·4 per cent of milk solids, and under these circumstances the Regulations require that the instructions given shall "clearly specify that the fluid so produced is not of equivalent composition to milk." The label contained no such statement. The brand in question was manufactured in Denmark, and the facts were therefore communicated to the Minister of Health, as required by Section 7 of the Regulations.

Table 9 contains a list of samples, other than milk, found to be adulterated, together with the action taken in each case.



TABLE 9.

| No. of Sample. | Description.                                     | Nature of Adulteration.                                        | Remarks.                                                                           |
|----------------|--------------------------------------------------|----------------------------------------------------------------|------------------------------------------------------------------------------------|
| 420<br>428     | Lemon Cheese . . . . .<br>Lemon Cheese . . . . . | { Packed in imitation of home made.                            | Manufacturers interviewed and promised to alter labels.                            |
| 443            | Cod Liver Oil and Malt Extract.                  |                                                                |                                                                                    |
| 510            | Turpentine . . . . .                             | Consisted of mineral oil. . . . .                              | Formal sample unobtainable. No further action.                                     |
| 531            | Cod Liver Oil and Malt Extract.                  | Contained only 3% by volume of cod liver oil and 3% olive oil. | See 443.                                                                           |
| 541            | Cheshire Cheese . . . .                          | Contained only 23% fat on dry matter.                          | Caution.                                                                           |
| 579            | Blackcurrant Jam . .                             | Contained 42 parts per million sulphur di-oxide.               | Makers agreed to issue fresh labels and cease using term "Home made."              |
| 715            | Blackcurrant Jam . .                             | Made from preserved pulp. . .                                  | See 579.                                                                           |
| 770            | Turpentine . . . . .                             | Contained only 2½% turpentine.                                 | Makers agreed to modify label or sell genuine turpentine under the existing label. |
| 900            | Milk Cheese . . . . .                            | Contained only 7.3% fat on dry matter.                         | Makers fined 10s. 6d. and £5 5s. 0d. Summons against retailer dismissed.           |
| 950            | Full Cream Condensed Milk.                       | Label offence . . . . .                                        | Facts communicated to the Ministry.                                                |
| 1083           | Zinc Ointment . . . . .                          | 10% excess of zinc oxide and traces of magnesium.              | See 1233.                                                                          |
| 1213<br>1243   | { Diabetic Flour . . . . .<br>{                  | Consisted of ordinary flour. .                                 | Retailer fined £5, summons against millers dismissed.                              |
| 1233           | Zinc Ointment . . . . .                          | Made with a base of paraffin hydrocarbons.                     | Maker agreed to alter his formula to that of the B.P.                              |
| 1438           | Seidlitz Powder. . . . .                         | Blue paper deficient 15% rochelle salt.                        | Further samples genuine.                                                           |
| 1851           | Whisky . . . . .                                 | Contained 4% added water. .                                    | { Informal sample.<br>See 1868.                                                    |
| 1868           | Whisky . . . . .                                 | Contained 3.7% added water                                     |                                                                                    |

### Butter and Margarine.

Twenty-three samples of butter have been examined during the year, all of which were genuine. The Reichert-Wollny number of the fat varied from 26·3 to 32·0. Eleven samples of margarine were also genuine.

### Lard and Cheese.

Eleven samples of lard and one of beef suet examined were all found to be genuine. Of the 37 samples of cheese submitted during the year, 7 were purchased as Cheshire cheese. One sample of Cheshire cheese, No. 541, contained only 23 per cent of fat calculated on the dry matters, whereas genuine Cheshire cheese never contains less than 45 per cent of fat calculated in this way. It was bought at a market stall by an agent of your Inspector and was sold at a shilling per pound; the price of genuine Cheshire cheese being 1s. 4d. per pound at the time. In view of the price paid, it was thought best to caution the vendor, who, however, denied that he ever sold this particular cheese as Cheshire.

One sample of cream cheese was genuine, and contained 58 per cent of fat and 38 per cent of water.

Samples Nos. 900 and 903 were informal and formal samples respectively of an article sold as Bondon Milk Cheese, each of which contained only 2 per cent of fat and over 70 per cent of water, the percentage of fat on the dry solids amounting to only 7·3. The article was simply a separated milk cheese loaded with water—a genuine milk cheese should contain not less than 45 per cent of fat calculated on the dry matter. The vendor



was summoned under Section 2, and the makers under Section 30, of the Food and Drugs (Adulteration) Act, 1928. The magistrate held that the makers must take the whole responsibility, and imposed a fine of 10s. 6d. with £5 5s. 0d. costs. The summons against the retailers was dismissed under the Probation of Offenders Act. The makers further announced their intention of describing the article in future as "Bondon Cheese." Unfortunately, "trade custom" allows the word "Bondon" to be used as a label for almost any kind of soft cheese, although it originally meant a whole milk cheese. It is regrettable that standards for cheese are still lacking.

### **Jam.**

Two samples of jam were examined. No. 579 was an informal sample bought at a retail shop, and the vendor assured the Inspector that it was made on the premises. The label bore the words "Home made" in large type, but as the jam contained 42 parts per million of sulphur dioxide, and was artificially dyed, this seemed to require some explanation. A formal sample, No. 715, was taken, and in view of the City Stipendiary's recent decision that a home-made article should be "made from ingredients that the ordinary housewife would use," the proprietor of the shop was interviewed, when he admitted that it was made from imported pulp, although the jam was actually manufactured on the premises. He agreed to cease using the word home-made and to issue fresh labels.



A joint committee representative of jam manufacturers and public analysts has recently met to consider standards for jam, marmalade, etc., and it is to be hoped that as a result of their deliberations standards for the different qualities of jam and similar products will emerge. Such standards are eminently desirable, and their adoption would enable the housewife to tell if a particular article were of first or of other quality. At the present time this is a practical impossibility.

### **Lemon Cheese.**

Sample No. 420 was put up in a small glass jar tied with parchment paper and string in imitation of a home-made article. There was no label on the jar, and the vendor was apparently supplying it in answer to demands for home-made lemon cheese. As the sample contained starch and 38.2 per cent of water, and the butter present amounted to only 5 per cent, it could not be described as home-made, and an interview was arranged with the makers. Promises were obtained that the article would be labelled properly and that the words "Home made" would not be used.

Sample No. 428 was sold in a similar way to the previous sample, put up in a glass tumbler and covered with gummed paper in imitation of a home-made article. It contained 18 per cent of fat, which was margarine, and not butter as it should have been. A similar procedure to that described for sample No. 420 was adopted, and the makers agreed, in the same way, to label the article properly.

### Flour.

Eight samples of plain and eight samples of self-raising flour have been examined during the year. Five of these samples contained nitrites in traces, and had therefore been treated with nitrogen peroxide. Two contained persulphate in the form of ammonium or potassium persulphates. Treatment with these substances as well as with other "improvers" in minute amounts is claimed to enhance the baking qualities of flour. A Committee appointed by the Ministry of Health reported on this question in February, 1927. They were not prepared to recommend the complete elimination of bleaching and improving agents now in use. They did not consider that "improving" with chlorine, nitrogen trichloride and benzoyl peroxide should be permitted, and concluded that "millers should be required to inform their customers whether their flour has undergone a process of chemical bleaching or improving, or both, and, if so, with what substances and in what proportions." Up to the time of writing, no legal effect has been given to any of the recommendations of this Committee.

### Diabetic Flour.

Sample No. 1213 was purchased from a retailer in the ordinary way, and proved to be ordinary whole flour. The vendor stated that he had bought it as diabetic flour, and arrangements were made to take a formal sample on delivery from the millers (No. 1243). Summonses were issued against the shopkeeper and the millers. The retailer was fined £5 and warned that he must not sell this article in future as diabetic flour. In



the hearing of the case against the millers, invoices were produced showing that the flour was consigned as "Sp. W. Flour," and the retailer in his evidence admitted that he got what he asked for. Accordingly, the Magistrate held that there was no sale of diabetic flour to the retailer from the millers, and the case against them was dismissed.

Diabetic flours, in general, consist of flour made from raw materials, which naturally contain less carbohydrate (i.e., starch and sugar) than wheat, or wheat or other flour treated so as to remove a considerable portion of the original carbohydrate. While there is a number of satisfactory articles on the market, there are also examples of products being sold which contain nearly as much carbohydrate as ordinary wheat flour. The prices asked range from 6d. to about 4s. per pound, and the price is not always a sure index of the suitability of any particular product for the diabetic patient. Although public analysts have, from time to time, taken exception to various products of this kind, it is impossible, in the absence of any standard, to take action except in extreme cases like the present, where the article supplied has obviously no more claim to be considered beneficial to the diabetic subject than ordinary flour.

### Whisky.

Sample No. 1851 was an informal one, and was 37.6 degrees under proof. Whisky must not be admixed with water so as to reduce its strength below 35 degrees under proof. This sample contained whisky of 35 degrees under proof, 96 per cent; added water, 4 per cent.



A formal sample from the same vendor, No. 1868, was found to contain 3·7 per cent of added water. The vendor was accordingly summoned, and fined £3.

### **Zinc Ointment.**

Unguentum Zinci, B.P., is directed to be made of zinc oxide 15, benzoated lard 85. Sample No. 1083 was found to contain 18 per cent of zinc oxide with traces of magnesium, and, further, to be made with a basis of petroleum jelly and cerasin. The manufacturer was interviewed, and declared that he thought a number of other makers used substantially the same formula. The other samples, taken at the same time, failed to corroborate this statement, only one other sample, the product of the same firm, not being of Pharmacopœial standard. Eventually this maker agreed to alter his formula to that of the B.P.

### **Seidlitz Powder.**

Sample No. 1438 was of the "extra-strong" type. According to the British Pharmaceutical Codex, the blue paper of such a powder should contain 2·5 grams of sodium bi-carbonate and 11·25 grams of Rochelle Salt. This sample was 15 per cent. deficient of Rochelle Salt. The makers of this brand had some time previously agreed in an interview to bring their product up to the standard of the B.P.C., and it was thought that this particular sample might be old stock. Later, a sample of the same brand was bought at another shop, and, as it was in accordance with the standard of the B.P.C., no further action was taken in this case.

### Malt Extract and Cod Liver Oil.

No. 443 was an informal sample and contained only 3·3 per cent of cod liver oil by weight. The formula given in the British Pharmaceutical Codex, 1923, for malt extract with cod liver oil, directs 15 per cent by volume or about 10·4 per cent by weight. This standard has also been adopted for National Health Insurance purposes. Seven other samples, all taken at the same time, contained at least 10·4 per cent of oil by weight. This sample was deficient of nearly 70 per cent of the correct amount of oil, and was the first to fall below this minimum standard for a considerable time. It also contained 3 per cent of olive oil. The chemist from whom it was bought had the labels printed, and they were put on by the wholesale firm. He was making a special line of the article, and the price was higher than usual, but he made no effort to ascertain if it was genuine. A formal sample, No. 531, bought in February, had the same composition, and at the request of your Committee the makers were communicated with and an interview arranged with one of the directors. According to him, this particular product was a special line made up at the request of many of their customers, who wished for a malt and oil of a more palatable flavour. There was, of course, no objection to this, but such a mixture should not be described as extract of malt with cod liver oil. The firm agreed to state the amount of both oils on the label and at the same time to increase the percentages if this could be done without any perceptible change in the flavour.

### Turpentine.

Sample No. 770 was bought as turpentine and was found to consist of  $97\frac{1}{2}$  per cent of white spirit,



a petroleum product, and  $2\frac{1}{2}$  per cent of turpentine. The label on the bottle described the product as "Specially blended spirits of turpentine—suitable for all household purposes." As the packers were a firm in a Lancashire town outside the Salford area, and the wholesalers a Manchester firm, a prosecution, though desirable, would probably have been a difficult matter, and an interview was therefore requested with a member of the firm. His defence was that it was a blended article and was not sold as pure spirits of turpentine, and also that the term "Turps" was a recognised trade name for turpentine substitute. Both these statements were, of course, ridiculous, and it was finally agreed that the article should be labelled and sold as turpentine substitute or that the genuine article should be sold with the present label.

### Miscellaneous Samples.

|                         |       |
|-------------------------|-------|
| Sunlight tests .....    | 1,552 |
| Rainwater .....         | 48    |
| Water and Deposit ..... | 4     |
| Breast Milk .....       | 31    |
| Dried Milk .....        | 1     |
| Milk .....              | 5     |
| Soap .....              | 11    |
| Paint .....             | 6     |
| Disinfectant .....      | 1     |
| Coke .....              | 1     |
| Beetle Powder .....     | 1     |
| Lemon Cheese .....      | 1     |
| Jam .....               | 1     |
| Wheaten Food .....      | 1     |
| Zinc Ointment .....     | 5     |
| Coroner's samples ..... | 5     |
| Police samples .....    | 11    |
| Hospital samples .....  | 6     |
|                         | <hr/> |
|                         | 1,691 |



The breast milks were examined for the Child Welfare Department, and the milk, dried milk, soap, and disinfectant were received from the Health Department. The Coroner's samples consisted of the viscera and other samples connected with a death which, it was suspected, might be due to irritant poison, but no such substance was present in the specimens examined.

Among the samples received from Salford Royal Hospital were hair, nails and urine, which were sent to be examined for arsenic, but none was discovered. The remaining samples call for no special mention and were mostly examined in connection with various investigations which were carried out during the year. Some of them were submitted by private persons who were suspicious of the purity of a certain article of food.

### **Strength of Sunlight.**

The miscellaneous samples described as "sunlight tests" were taken in connection with an investigation begun in 1926, and continued during 1927, 1928 and 1929, with regard to the comparative strength of the sunlight received at four different stations, viz., Regent Road, Ladywell Sanatorium, Drinkwater Park, and Nab Top Sanatorium, Marple.

In the case of the first-named station, the tests were carried out on the roof of the Health Department, and in the other three cases, in the grounds of the institutions named. The test consisted in the exposure of a solution of potassium iodide acidified by sulphuric acid in a two-ounce bottle in the presence of air. Free iodine is

liberated by the action of the sunlight, and the amount found is proportional to the light received. The figures given in the following table represent milligrams of iodine. The monthly totals for 1929 are given below :—

| Month,<br>1929. | Regent<br>Road. | Nab Top<br>Sanatorium,<br>Marple. | Ladywell<br>Sanatorium. | Drinkwater<br>Park. |
|-----------------|-----------------|-----------------------------------|-------------------------|---------------------|
| January .....   | 76·5            | 119·6                             | 81·1                    | 94·9                |
| February .....  | 69·1            | 102·9                             | 81·4                    | 81·7                |
| March .....     | 105·5           | 143·3                             | 130·4                   | 128·1               |
| April .....     | 111·7           | 167·1                             | 152·0                   | 159·2               |
| May .....       | 169·0           | 202·8                             | 219·4                   | 189·3               |
| June .....      | 169·7           | 201·4                             | 195·6                   | 194·6               |
| July .....      | 185·4           | 218·0                             | 200·1                   | 204·3               |
| August .....    | 216·3           | 244·4                             | 236·1                   | 241·4               |
| September ..... | 171·8           | 196·5                             | 184·4                   | 187·9               |
| October .....   | 137·0           | 139·8                             | 131·9                   | 147·5               |
| November .....  | 82·4            | 91·4                              | 79·1                    | 80·7                |
| December .....  | 64·6            | 105·7                             | 80·7                    | 71·9                |

It will be seen that the figures for Regent Road are, with one exception, lower than those for the other three stations. This gives some idea of the smoke blanket which hangs over the centre of the City. Other factors such as ground mist cannot, of course, be taken into consideration, but, in general, the figures show that the active amount of sunlight received in the centre of the City is considerably less than the amounts received at the outlying stations. The most notable feature of the results for 1929 is that the total amount of sunlight as

measured by this method was considerably more than the average. This was mainly due to the bright summer and the absence of fog in the winter. A possible additional cause of the all-round increase is that owing to trade depression less coal was consumed for industrial, and perhaps for household purposes. This view finds some support when it is noticed that the figures for atmospheric "pollution," on page 303, show that the rainfall collected during the year contained considerably less of those impurities which can be directly traced to the combustion of coal. These impurities are tar, carbonaceous matter other than tar, and sulphates. A table is given showing comparative figures obtained under these three items for the years 1926 to 1929.

|                                              |          | Salford,<br>Peel<br>Park | Salford,<br>Ladywell<br>Sanatorium | Salford,<br>Regent<br>Square | Marple,<br>Salford<br>Sanatorium |
|----------------------------------------------|----------|--------------------------|------------------------------------|------------------------------|----------------------------------|
| Tar . . . . .                                | { 1926.. | 0.80                     | 0.81                               | 0.83                         | 0.27                             |
|                                              | { 1927.. | 0.64                     | 0.12                               | 0.84                         | 0.38                             |
|                                              | { 1928.. | 0.60                     | 0.63                               | 1.02                         | 0.28                             |
|                                              | { 1929.. | 0.49                     | 0.43                               | 0.57                         | 0.10                             |
| Carbonaceous<br>Matter<br>other than<br>Tar. | { 1926.. | 2.91                     | 2.90                               | 3.49                         | 1.20                             |
|                                              | { 1927.. | 4.73                     | 2.70                               | 6.48                         | 3.60                             |
|                                              | { 1928.. | 3.76                     | 1.07                               | 3.66                         | 2.82                             |
|                                              | { 1929.. | 1.96                     | 1.81                               | 3.45                         | 1.19                             |
| Sulphates . . . .                            | { 1926.. | 2.12                     | 1.52                               | 1.59                         | 0.88                             |
|                                              | { 1927.. | 2.52                     | 1.60                               | 1.75                         | 1.41                             |
|                                              | { 1928.. | 3.07                     | 1.55                               | 3.00                         | 1.28                             |
|                                              | { 1929.. | 1.25                     | 1.05                               | 1.49                         | 0.77                             |

The figures given are in metric tons per square kilometre.



### Atmospheric Pollution.

The work of examining the deposit obtained in the special gauges placed at various points in the City, which has been described in the reports for the last five years, has been continued. At the present time the standard gauge is situated in Peel Park, and similar types of gauges are situated in the centre of the recreation ground in Regent Square, and in the grounds of the Corporation Sanatorium at Marple, Cheshire, and Ladywell Sanatorium, Pendleton.

In uniformity with the results expressed by other stations, of which there are a number scattered throughout Great Britain, the results are expressed in metric tons per square kilometre. The metric ton is equivalent to slightly more than the British ton, whilst there are 2.59 square kilometres in a square mile, so that to convert metric tons per square kilometre to English tons per square mile it is necessary to multiply by 2.55, or roughly  $2\frac{1}{2}$ . The following are the average results that have been obtained during the year. The contamination of the Ladywell area is rather less than that of the two City areas, whilst, as was to be expected, the atmosphere at Marple is, comparatively speaking, "pure."

In order that comparison may be made with other districts, the average figures are given for the gauge giving the greatest and least deposits in the country. These figures are only available at present for the period April, 1927, to March, 1928. The gauge giving the highest deposit is that at City Road, Newcastle, whilst the gauge showing the least deposit for which complete figures are available is West Heath, Birmingham.

|                                                 | Salford :<br>Peel Park. | Salford :<br>Ladywell<br>Sanatorium. | Salford :<br>Regent<br>Square. | Marple :<br>Salford<br>Sanatorium. | Newcastle*<br>City Rd. | Birmingham*<br>West Heath. |
|-------------------------------------------------|-------------------------|--------------------------------------|--------------------------------|------------------------------------|------------------------|----------------------------|
| Rainfall in Millimetres ..                      | 75.70                   | 77.97                                | 76.19                          | 77.45                              | 73.0                   | 82.0                       |
| Tar,<br>Carbonaceous<br>other than tar.<br>Ash. | 0.49<br>1.96<br>4.89    | 0.43<br>1.81<br>3.35                 | 0.57<br>3.45<br>4.31           | 0.10<br>1.19<br>0.90               | 0.66<br>9.75<br>11.87  | 0.04<br>0.42<br>0.97       |
| Loss on ignition.<br>Ash.                       | 1.04<br>2.46            | 0.89<br>1.93                         | 1.30<br>2.31                   | 0.85<br>1.30                       | 2.20<br>5.25           | 0.96<br>1.80               |
| Total Solids .....                              | 10.84                   | 8.41                                 | 11.94                          | 4.34                               | 29.73                  | 4.19                       |
| Sulphates.<br>Chlorine.<br>Ammonia.             | 1.25<br>0.97<br>0.03    | 1.05<br>0.89<br>0.03                 | 1.49<br>1.02<br>0.04           | 0.77<br>0.66<br>0.03               | 2.50<br>0.90<br>0.19   | 0.87<br>0.32<br>0.06       |

\* These figures are computed from April, 1927, to March 31st, 1928.

## SECTION VIII.

## Maternity and Child Welfare and Supervision of Midwives.

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The Staff consists of three Lady Medical Officers, an Assistant Inspector of Midwives, 16 Health Visitors, two Masseuses, one Artificial Light Operator and seven Clerks. It is the duty of the Medical Officers to conduct all examinations of mothers and children attending at the Clinics and at the Centres. The Senior Medical Officer supervises the visiting and assists in the administrative work of the Department. Each Health Visitor is allotted a district, to the visiting of which most of her time is devoted, and a record is kept of all details connected with the sanitary state of the house and the health of its occupants. In addition, the Health Visitors carry on the work at the various Mothers' Centres in the City.

### The Work of the Health Visitors.

During the year 1929, the whole of the Wards in the City were visited by the Health Visitors.



The following table gives the number of visits paid by the Health Visitors in the various Wards, and the number of babies and expectant mothers visited during the year 1929 :—

TABLE C.W. 1.

| Wards                          | Total No. of<br>Visits to<br>Homes in<br>1929. | First Visits<br>to Homes<br>of<br>Babies. | No. of Visits<br>to<br>Expectant<br>Mothers. |
|--------------------------------|------------------------------------------------|-------------------------------------------|----------------------------------------------|
| Kersal . . . . .               | 1188                                           | 152                                       | 39                                           |
| Mandley Park . . . . .         | 1856                                           | 228                                       | 48                                           |
| Albert Park . . . . .          | 2430                                           | 342                                       | 148                                          |
| Trinity . . . . .              | 3042                                           | 329                                       | 126                                          |
| St. Matthias' . . . . .        | 1456                                           | 316                                       | 74                                           |
| Crescent . . . . .             | 2159                                           | 382                                       | 69                                           |
| St. Thomas' . . . . .          | 2509                                           | 221                                       | 80                                           |
| Charlestown . . . . .          | 2030                                           | 266                                       | 59                                           |
| Claremont and Weaste . . . . . | 2330                                           | 235                                       | 85                                           |
| Seedley . . . . .              | 655                                            | 117                                       | 9                                            |
| Langworthy . . . . .           | 1495                                           | 175                                       | 28                                           |
| Regent . . . . .               | 1577                                           | 347                                       | 35                                           |
| Docks . . . . .                | 1375                                           | 143                                       | 24                                           |
| St. Paul's . . . . .           | 2802                                           | 286                                       | 55                                           |
| Ordsall Park . . . . .         | 2227                                           | 250                                       | 26                                           |
|                                | 29181                                          | 3789                                      | 905                                          |

The following is a summary of the work done in Salford by the Visitor employed by the Manchester Jewish Ladies' Visiting Association :—

January to December, 1929.

House to House . . . . . 739  
Special . . . . . 129

Municipal Maternity Home and Babies' Hospital.

MATERNITY DEPARTMENT.

1. ADMISSIONS.

The number of new cases admitted during the year 1929 was as follows :—

|                                               |     |
|-----------------------------------------------|-----|
| For special ante-natal treatment .....        | 25  |
| For confinement .....                         | 244 |
| Treated and not returned for confinement .... | 3   |
| Referred to Hope Hospital.....                | 3   |
| Born before arrival.....                      | 3   |

2. Births (including 5 sets twins).

|               |     |
|---------------|-----|
| Males .....   | 130 |
| Females ..... | 108 |

3. STILLBIRTHS.

|               |   |
|---------------|---|
| Males .....   | 7 |
| Females ..... | 4 |

4. DEATHS OF INFANTS.

|             |   |
|-------------|---|
| Males ..... | 5 |
|-------------|---|

5. MEDICAL ASSISTANCE.

|                 |    |
|-----------------|----|
| Maternity ..... | 64 |
| Infants .....   | 12 |

The work of the Maternity Home and Babies' Hospital continues on the same lines as formerly. The beds are always fully booked, and cases still have to be refused owing to lack of accommodation.

The cases booked for the Maternity Home attend the ante-natal clinic very regularly, as a result of which it is found possible to treat slight abnormalities promptly, and thus avoid serious complications at the time of the

confinement. There is no difficulty in getting mothers to attend, and they seem very interested in doing all they can to prepare themselves for the birth of the child.

### Work of the Babies' Department of the Municipal Maternity Home and Babies' Hospital.

#### 1. ADMISSIONS.

The number of new cases admitted during the year 1929 was 47, disposed as follows :—

11 Rickets.

36 Marasmus and Malnutrition.

#### 2. DISCHARGES.

The number of cases discharged during the year 1929 was 39. These were as follows :—

##### *Cured.*

8 Rickets.

11 Marasmus.

11 Malnutrition,

##### *Improved.*

5 Rickets.

##### *No Improvement.*

4 Rickets.

} Taken out by parents after  
very short stay.

#### 3. DEATHS.

The number of deaths during 1929 was 8, as follows :—

3 Marasmus and Chronic Dyspepsia.

1 Convulsions and Bronchitis.

1 Acute Bronchial Pneumonia.

1 Chronic Dyspepsia, Marasmus and Microcephaly.

2 Marasmus and Chronic Gastro-Enteritis.



The cases of Malnutrition and Marasmus which have been admitted to the Municipal Babies' Hospital have given us great satisfaction, and the mothers, on seeing how healthy their children are at the time of their discharge from Hospital, have risen to the occasion and done their best to maintain the progress when the children have been taken back to the less healthy surroundings of their own homes. It is much to the credit of the mothers that in many cases progress has continued satisfactorily.

The sunlight lamp is still used for the treatment both of sick infants and rickets, but we still find that the more fresh air the children can get the better is their improvement.

### **Maternity and Child Welfare Clinics and Centres.**

Considerable improvement has been made during the year in the accommodation for the practical work of the Maternity and Child Welfare Department, as carried on at the Clinics and Centres, where children are weighed up to five years of age, and mothers can obtain medical advice for themselves and for the children.

Owing to extensions at the Regent Road Clinic, the accommodation now provides a weighing room with consultation room at the back, a clinic where minor ailments are treated, and where the mothers wait for consultation with the doctor, who sees them at the back of these premises. In addition, there is a sunlight clinic, where both Mercury Vapour and Carbon Arc Lamps are

used, and where a Radiation Heat Lamp is installed for those cases needing it. The consulting room at the back of this clinic is used for massage work, and many of these cases are also in receipt of sunlight treatment. The consulting room at the back of the weighing room is used by the Medical Officer for interviewing the cases requiring sunlight treatment.

The Teneriffe Street Clinic is doing excellent work in very unsuitable premises, and it is very urgently desired that new premises be provided to accommodate the large numbers of patients who attend this clinic from the Broughton area.

Of the eight centres in the out-lying districts which are opened only once per week, where the children are weighed and the mothers can seek advice *re* feeding and general care of their infants, two have been accommodated in new and much more suitable buildings ; these centres are Ordsall and Rosamond Street. An entirely new building has been erected to accommodate the work of the Ordsall district ; this is in every way an ideal building for the purpose, and a great advance in structure on anything we have ever had in Salford. Rosamond Street Centre has been accommodated for all its activities in new premises at Encombe Place, Salford. It was, unfortunately, not possible to erect a new building, but the two modified houses have made a delightfully light and roomy centre for our welfare work.

The remaining centres are : John Street, Seedley, Enys Street, Woodbine Street, Regent Road, and



Irlams-o'-th'-Height, and it is still found necessary to have a morning session as well as an afternoon session at John Street, Seedley and Enys Street.

The children are weighed undressed, and are medically examined at their first attendance. Mothers can see the Medical Officer on any day they wish, and even the healthy children are examined periodically by the Medical Officer to see that progress is satisfactory. Nursing mothers are still advised at these centres, but expectant mothers are referred, as usual, for examination to the ante-natal clinics, which are held on Thursday each week at both Regent Road and Teneriffe Street. An increasing number of Doctors and Midwives are referring their cases for examination to these Clinics, and there are undoubted signs that the different branches of the midwifery service in the City are being co-ordinated.

Dinners are provided daily at Ordsall, John Street, and Encombe Place, and the attendances are quite up to their usual standard. Also, at Ordsall, Encombe Place, John Street, Enys Street, Regent Road and Seedley, practical classes and demonstrations are held in sewing, and at John Street and Encombe Place classes are also held in cookery and the general hygiene of pregnancy and of the infant.

The cases attending the Clinics and Centres are "followed up" in their homes by the Health Visitors, who help the patients to carry out the instructions given.

The following figures show the number of attendances at the clinics and various centres during the year 1929 :—



TABLE C.W. 2.

| CLINICS AND CENTRES.        | No. of New Cases. |         | No. of New Cases. |          | Total Attendances. |          |           |         | Grand<br>Total<br>Attend-<br>ances. | Consultations. |         |                 |          |
|-----------------------------|-------------------|---------|-------------------|----------|--------------------|----------|-----------|---------|-------------------------------------|----------------|---------|-----------------|----------|
|                             | Children.         |         | Mothers.          |          | Mothers.           |          | Children. |         |                                     | Children.      |         | Mothers.        |          |
|                             | Under 1.          | Over 1. | Expec-<br>tant.   | Nursing. | Expec-<br>tant.    | Nursing. | Under 1.  | Over 1. |                                     | Under 1.       | Over 1. | Expec-<br>tant. | Nursing. |
|                             |                   |         |                   |          |                    |          |           |         |                                     |                |         |                 |          |
| C.W. Clinic .....           | 516               | 451     | 430               | 33       | 2196               | 161      | 3145      | 4350    | 9852                                | 1678           | 1891    | 2196            | 161      |
| Ordsall .....               | 203               | 64      | 21                | 158      | 30                 | 1509     | 2239      | 1084    | 4862                                | 607            | 326     | 30              | 34       |
| Rosamond Street .....       | 224               | 86      | 27                | 119      | 76                 | 853      | 2796      | 1756    | 5481                                | 701            | 450     | 76              | 78       |
| John Street, Pendleton...   | 200               | 58      | 42                | 109      | 73                 | 1653     | 3283      | 2001    | 7010                                | 737            | 493     | 72              | 32       |
| Seedley .....               | 270               | 52      | 7                 | 158      | 12                 | 1773     | 3631      | 1402    | 6818                                | 700            | 345     | 12              | 50       |
| Enys Street .....           | 209               | 60      | 18                | 126      | 46                 | 753      | 2584      | 1045    | 4428                                | 831            | 438     | 46              | 46       |
| Regent Road .....           | 215               | 98      | 5                 | 87       | 6                  | 671      | 1977      | 1457    | 4111                                | 682            | 516     | 6               | 12       |
| Woodbine Street .....       | 121               | 22      | 4                 | 80       | 7                  | 945      | 1676      | 559     | 3187                                | 478            | 194     | 7               | 17       |
| Teneriffe Street Clinic.... | 519               | 377     | 140               | 83       | 321                | 193      | 5114      | 3994    | 9622                                | 2553           | 1866    | 312             | 191      |
| Irlams-o'-th'-Height ....   | 103               | 23      | 2                 | 63       | 8                  | 822      | 1275      | 500     | 2605                                | 416            | 237     | 8               | 35       |
|                             | 2580              | 1291    | 696               | 1016     | 2775               | 9333     | 27720     | 18148   | 57976                               | 9383           | 6756    | 2765            | 656      |

### **Milk Scheme.**

There is still a continuous and fairly regular demand for assistance under our Free Milk Scheme, and the assisted cases are kept under careful observation. During the year assistance has been given to 1,207 applicants, free milk or dried food being granted to 1,157 and milk at part-pay to 50.

### **Massage.**

In this connection a regular and continuous flow of cases continue to receive massage treatment, and the results in all cases where mothers will continue to bring the children regularly and for a sufficient length of time are very satisfactory, and complete cures have been effected in quite a number of cases. The fact that our Rickets and Malnutrition cases can now receive sunlight treatment at Regent Road Clinic has very greatly added to the value of the Massage work. It has been possible to shorten the period of treatment and to improve the general condition of the children much more satisfactorily where both sunlight and massage have been given together. It is still a drawback to our work that when the children are improving nicely, the mothers break off their attendances and will not come to be officially discharged; this prevents the proper compiling of results and makes our work seem less efficient than it really is.

During the year 1929 the following cases have been dealt with :—

| Clinics and Centres.         | No. of Regular Cases. | No. of Casual Cases. | Cases Discharged Cured. |
|------------------------------|-----------------------|----------------------|-------------------------|
| Regent Road .....            | 156                   | 161                  | 9                       |
| John Street .....            | 50                    | 70                   | 17                      |
| Rosamond Street .....        | 24                    | 20                   | 4                       |
| Teneriffe Street .....       | 67                    | 93                   | 16                      |
| Enys Street .....            | 36                    | 51                   | 9                       |
| Ordsall .....                | 32                    | 34                   | 16                      |
| Nursery School .....         | 18                    | 4                    | 1                       |
| Municipal Babies Hospital .. | 28                    | 7                    | 27                      |
| <b>TOTAL</b> .....           | <b>411</b>            | <b>440</b>           | <b>99</b>               |

### Artificial Light Clinic.

The following are the Sunlight Clinic figures for six months from June to December, 1929 :—

|                                |       |
|--------------------------------|-------|
| Individual cases.....          | 246   |
| Total attendances .....        | 2,729 |
| Cases discharged .....         | 56    |
| Very much improved .....       | 40    |
| Much improved .....            | 10    |
| Improved .....                 | 6     |
| Cases sent into Hospital ..... | 13    |
| Removed from district .....    | 3     |



Demonstration Windows—Regent Road.

The above windows have aroused a great deal of interest amongst the mothers, many of whom come to the Regent Road Centre to learn more about the methods of feeding, clothing, and general care of their children.

Nursing Homes Registration Act, 1927.

No new Nursing Homes have been registered in Salford during the year.

Midwives' Act.

There are 85 midwives on the register in Salford ; 13 are connected with a public institution and 7 are not practising, leaving 65 practising midwives, of whom 51 reside within the City.

PARTICULARS OF QUALIFICATIONS.

|                                   | Bona-fides. | St. Mary's Hospital. | London Obstetrical Society. | Central Midwives' Board | Total. |
|-----------------------------------|-------------|----------------------|-----------------------------|-------------------------|--------|
| Practising Midwives . . . . .     | 3           | 6                    | 5                           | 51                      | 65     |
| Non-practising Midwives . . . . . | —           | —                    | 1                           | 6                       | 7      |
| Maternity Nursing . . . . .       | —           | —                    | —                           | —                       | —      |
| Institution Nurses . . . . .      | —           | —                    | —                           | 13                      | 13     |
| Totals . . . . .                  | 3           | 6                    | 6                           | 70                      | 85     |

The midwives are regularly visited, and their books, instruments, &c., inspected by the Assistant Inspector, under the supervision of the Medical Officer, and the midwives are encouraged to consult with the Medical Officer when cases of difficulty arise. During the year

4 midwives removed from the district, 2 of these from the Royal District Nurses' Home, The Crescent; 3 changed their address; 7 midwives were newly registered; 1 ceased to practise, and 2 died. During the year 1929, 2,414 births were attended by midwives alone, and 282 cases were attended by doctors and midwives acting as Maternity Nurses.

### Puerperal Fever.

Fifteen cases of puerperal fever were notified during the year, and 4 were doctors' cases. Of the remaining 11 cases, 9 midwives had 1 case each and 1 midwife had 2 cases. They were thoroughly enquired into, and every care taken to prevent the spread of the disease.

On notification, each case is inspected. The house is visited by the Assistant Inspector of Midwives and the patient is removed by Doctor's orders (except in one or two special cases), to Ladywell Sanatorium or Hope Hospital. Full details concerning the onset of the illness are taken from someone in the house in authority, and questions are asked as to the Midwife's regular visiting, cleanliness, etc. The patient's bedding is taken away for disinfection, and the room is disinfected. The house is visited later to see that disinfection is satisfactory. The Midwife is interviewed and particulars taken of the case, also a resumé of any work done since last seeing the infected person. She is temporarily suspended in order that she may go to the Disinfecting Station to have a disinfecting bath, and have her clothes, instruments and bag disinfected. Should she have visited other



patients, not being aware of infection at the time, these are seen by the Assistant Supervisor, temperature and pulse taken, and their condition generally noted. The Midwife is warned to take special precautions regarding them, to watch carefully, and send for the Doctor without delay if at all anxious about them. In a case of suspected Sepsis, the Midwife sends for the Doctor, reports to the Health Office, and is temporarily suspended until she hears the Doctor's decision, or as an alternative she may devote herself to the one patient, and pass on her other duties to another Midwife.

### **Puerperal Pyrexia.**

During the year 1929, 21 cases were notified in Salford :—

19 recovered, and

2 proved fatal. One of these patients was suffering from Pneumonia following Influenza ; one was confined in Hope Hospital of stillborn baby, and later developed Puerperal Thrombosis.

10 cases were removed to Hospital.

8 cases were nursed at home.

3 cases occurred in Hope Hospital and were isolated there.

Special accommodation has been provided at Ladywell Sanatorium for this class of case, and all the patients removed there have done extremely well, with the exception of one case, which proved fatal.



As the regulations require prompt notification of rise of temperature, special attention for these cases is quickly available, and, if necessary, a consultant may be called in, arrangements for which have been made.

Bacteriological examinations of lochia and blood are made, on request, at the Municipal Laboratories, and in cases where the doctor does not think it necessary to send the patient to hospital, she can be nursed at home, a special nurse (trained and a midwife) being sent from the Maternity and Child Welfare Department to nurse the case under the supervision of the patient's own doctor.

The same precautions are taken with Puerperal Pyrexia as with Puerperal Fever, the disinfection and suspension of midwives being carried out in a similar manner.

### Disinfection.

Three Midwives were disinfected at Mode Wheel on account of having been in contact with a notifiable infectious disease other than puerperal fever; and 6 Midwives were instructed to take disinfecting baths at home. Five Midwives were disinfected at Mode Wheel on account of having been in contact with Pemphigus Neonatorum, one being suspended for one month. In 4 cases in which it was found that the rash had developed after the Midwives had ceased to attend the patients. the Midwives had disinfecting baths at home.

### Notifications.

1,131 notifications of calling in medical practitioners have been received, the causes being the following :—

|                                                               |       |
|---------------------------------------------------------------|-------|
| Abnormal Presentations.....                                   | 65    |
| Deformed Pelvis .....                                         | 1     |
| Antepartum Hæmorrhage .....                                   | 36    |
| Placenta Prævia .....                                         | 4     |
| Postpartum Hæmorrhage.....                                    | 20    |
| Uterine Inertia.....                                          | 89    |
| Obstructed labour, or requiring instrumental assistance ..... | 135   |
| Retained Placenta or Membranes .....                          | 53    |
| Ruptured Perineum .....                                       | 267   |
| Rise of Temperature .....                                     | 31    |
| Eclampsia .....                                               | 3     |
| Premature Birth .....                                         | 38    |
| Miscarriage and Abortion .....                                | 17    |
| Inflammation of Eyes .....                                    | 158   |
| Other causes relating to Mother .....                         | 137   |
| „ „ „ Child.....                                              | 77    |
| <hr/>                                                         |       |
| Total .....                                                   | 1,131 |

Fifteen notifications of contact with infectious disease were received.

Forty-six notifications of artificial feeding, 75 stillbirths and 48 deaths of infants were notified by Midwives during the year.

### Investigation of Stillbirths and Infant Deaths.

Each case occurring in Midwives' practices is thoroughly investigated by the Assistant Inspector of Midwives.

As practically every mother now receives Ante-natal care where there is a history of previous stillbirth, the

mother is advised to seek medical advice from her own Doctor, the Welfare Clinics, St. Mary's Hospital, or other kindred institutions, and in most cases this advice is followed out.

Out of the 75 stillbirths occurring in Midwives' practices there were :—

- 10 Abnormal presentation.
- 8 Premature.
- 1 Hydrocephalus.
- 1 Spina Bifida.
- 2 With history of previous Stillbirth.
- 8 Born before arrival of help (3 of these were macerated).
- 9 Macerated.
- 6 cases of Antepartum hæmorrhage.
- 11 cases of illness of mother.
- 8 cases when mother had had a bad shock.
- 1 Anencephalus.
- 1 Monster Freak.
- 4 Difficult labour, owing to very large child.
- 4 Cases occurred in Municipal Maternity Home.
- 1 Case had a doctor engaged for the case.

### **Death of Newly-born Infants (no Registered Practitioner being in Attendance at the Birth).**

An Inquest was held in connection with 1 Infant Death occurring in the practice of a Midwife. This child only lived half an hour. A doctor was sent for immediately, but was not available. A verdict of death from natural causes was returned.

When necessary, the Assistant Inspector attends the inquests.



In addition, 47 notifications of infants' deaths were received, medical practitioners being called in each case.

The causes of deaths were as follows, viz. :—

|                                               |    |
|-----------------------------------------------|----|
| Prematurity and Debility .....                | 19 |
| Prematurity and Cardiac Failure .....         | 2  |
| Asphyxia Neonatorum and Congenital Debility.. | 3  |
| Congenital Malformation .....                 | 4  |
| Congenital Debility .....                     | 8  |
| Convulsions .....                             | 11 |

**Ophthalmia Neonatorum.**

During the year 1929, 35 cases of Ophthalmia Neonatorum were notified, 7 of these being notified or re-notified by the Medical Staff of the Royal Eye Hospital.

Of the 35 cases notified—

- 20 occurred in the practice of Midwives.
- 3 were attended by Doctors.
- 4 were notified by Royal Eye Hospital.
- 8 were notified from Hope Union.

These cases are visited, on notification, by the Assistant Inspector of Midwives, and where necessary a District Nurse is sent to give treatment under Doctor's orders.

In 18 cases both eyes were affected, and in 17 cases 1 was affected. There were 2 very bad cases, 2 bad cases, 6 fairly bad, 14 slight cases, 11 very slight cases,

and 5 cases were referred to the District Nurses, who paid 113 visits. 145 visits were paid by the Assistant Inspector of Midwives, who also visited all cases of inflammation of the eyes notified under the Midwives' Act, to which she paid 495 visits.

Of the 35 cases—

34 recovered without injury to sight.

1 developed an ulcer, causing injury to sight of left eye.

As the Midwives are all very anxious to avoid any trouble with regard to eyes, they are prompt in sending for medical help at the least sign of discharge or inflammation, so that the majority of cases are quite slight.

Ophthalmia Neonatorum.

| Cases<br>Notified. | Cases<br>Treated. |                 |                  | Vision<br>Unim-<br>paired. | Vision<br>Im-<br>paired. | Total<br>Blind-<br>ness. | Deaths. |
|--------------------|-------------------|-----------------|------------------|----------------------------|--------------------------|--------------------------|---------|
|                    | At Home           | At Ho<br>Out-P. | spital.<br>In-P. |                            |                          |                          |         |
| 35                 | 21                | 6               | 8                | 34                         | 1                        | Nil.                     | Nil.    |

### **Pemphigus Neonatorum.**

There has been a slight decrease in the number of cases of this disease during the year 1929.

The number of cases which occurred during 1929 was 11, 7 recovered and 4 proved fatal.

Of the 11 cases—

2 were affected on the body and face.

2 were affected on the legs.

3 were affected on the neck and face.

4 were affected on the abdomen and thighs.

The age at which the disease started varied from the sixth day to 3 weeks.

All of the cases occurred in the Midwives' practices.

All the Nurses involved were disinfected at the Corporation Disinfecting Station, and every care was taken to prevent the spread of infection.

When the disease started during the first 10 days, the cases were taken over from the Midwives and nursed by a trained Midwife and Nurse belonging to the Health Department.



TABLE C.W. 3.—NOTIFICATION OF BIRTHS.

| WARD.               | Still Births Notified. | Total Live Births Notified. | Births Notified by Midwives. | Births Notified by Medical Practitioners. | Births Notified by Parents and other persons. | Births in St. Mary's Hospital and Salford Union. | Births in Municipal Maternity Home. | Live Births not Notified. |
|---------------------|------------------------|-----------------------------|------------------------------|-------------------------------------------|-----------------------------------------------|--------------------------------------------------|-------------------------------------|---------------------------|
| Kersal .....        | 8                      | 166                         | 95                           | 41                                        | 2                                             | 22                                               | 6                                   | 16                        |
| Mandley Park .....  | 12                     | 216                         | 144                          | 38                                        | 1                                             | 26                                               | 7                                   | 4                         |
| Albert Park .....   | 7                      | 283                         | 147                          | 69                                        | ..                                            | 51                                               | 16                                  | 9                         |
| Charlestown .....   | 15                     | 282                         | 186                          | 23                                        | ..                                            | 60                                               | 13                                  | 2                         |
| St. Matthias' ..... | 11                     | 303                         | 200                          | 47                                        | ..                                            | 42                                               | 14                                  | 3                         |
| Trinity .....       | 15                     | 347                         | 229                          | 52                                        | ..                                            | 52                                               | 14                                  | 3                         |
| St. Thomas' .....   | 15                     | 226                         | 154                          | 12                                        | 2                                             | 40                                               | 18                                  | 3                         |
| Claremont.....      | 3                      | 63                          | 22                           | 22                                        | 1                                             | 10                                               | 8                                   | 6                         |
| St. Paul's .....    | 9                      | 269                         | 190                          | 19                                        | 2                                             | 38                                               | 20                                  | 2                         |
| Seedley .....       | 4                      | 86                          | 46                           | 11                                        | ..                                            | 14                                               | 15                                  | 1                         |
| Langworthy .....    | 2                      | 170                         | 98                           | 13                                        | ..                                            | 33                                               | 26                                  | 5                         |
| Weaste .....        | 9                      | 190                         | 89                           | 20                                        | 3                                             | 55                                               | 23                                  | 7                         |
| Regent .....        | 16                     | 330                         | 206                          | 27                                        | 1                                             | 76                                               | 20                                  | 2                         |
| Docks .....         | 6                      | 182                         | 108                          | 24                                        | 1                                             | 32                                               | 17                                  | 3                         |
| Crescent .....      | 20                     | 403                         | 265                          | 34                                        | ..                                            | 93                                               | 11                                  | 1                         |
| Ordsall Park .....  | 17                     | 324                         | 213                          | 18                                        | 1                                             | 82                                               | 10                                  | 1                         |
|                     | 169                    | 3840                        | 2392                         | 470                                       | 14                                            | 726                                              | 238                                 | 68                        |

TABLE C.W. 4.

SUMMARY.

BIRTHS.

Registered: Legitimate, 3 761; Illegitimate, 142; Total, 3,903.  
Notified: Live births, 3,840; Still births, 169; Total, 4,009.  
By Midwives, 2,392: by Parents, Doctors and Institutions, 1,448  
Un-notified Births = 68.

STILLBIRTHS.

|              | Legitimate | Illegitimate | Total |
|--------------|------------|--------------|-------|
| Males.....   | 78         | 5            | 83    |
| Females .... | 82         | 4            | 86    |
| Total....    | 160        | 9            | 169   |

INFANT DEATHS (UNDER 1 YEAR).

Number: Legitimate, 460; Illegitimate, 29; Total, 489.  
Rate per 1,000 births: Legitimate, 122; Illegitimate, 204; Total, 125.

MIDWIVES.

Number practising in district: Trained, 65; Untrained, 3.  
Number of visits paid: Routine and special, 336.

HEALTH VISITORS.

Visits paid by Health Visitors during year:—  
To Expectant Mothers: First visits, 635; Total visits, 905.  
To Children: First visits, 3,789; Total visits, 28,276.  
To Mothers and Children: Total visits, 29,181.

|                             | No. of cases notified. | No. of visits. | No. of cases nursed. | No. of cases removed to hospital. |
|-----------------------------|------------------------|----------------|----------------------|-----------------------------------|
| Ophthalmia Neonatorum ..... | 35                     | 145            | 3                    | 4                                 |
| Puerperal Fever .....       | 15                     | 39             | 1                    | 14                                |
| Puerperal Pyrexia .....     | 21                     | 60             | 8                    | 13                                |